WK-1500

OPERATION MANUAL
MANUAL DE OPERACION

P
WK1500ES-1

CASIO

GUIDELINES LAID DOWN BY FCC RULES FOR USE OF THE UNIT IN THE U.S.A (not applicable to other areas).

NOTICE

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC WARNING

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Welcome...

To the happy family of satisfied CASIO electronic musical instrument owners! To get the most out of the many features and functions of the keyboard, be sure to carefully read this manual and keep it on hand for future reference.

Important!
When using batteries, be sure to replace them or shift to one of the alternate power sources whenever you notice any of the following symptoms.

- Dim power supply indicator
- Abnormally low speaker/headphone volume
- Distortion of sound output
- A totally different tone may sound
- Abnormal rhythm pattern and demo tune play
- Continued sound output even after you release a button
- Occasional interruption of sound when playing at high volumes
- Sudden power failure when playing at high volumes

Main Features

❑ 76-key keyboard

- 76 keys provide plenty of artistic versatility.
- Perfect for use as a master keyboard for a connected external sound source.

❑ General MIDI Level 1 compatibility

- Built-in tones are numbered according to General MIDI Level 1 standards for full enjoyment of DTM.

❑ 16-channel mixer and MIDI monitor

- These useful features make parameter settings quick and easy. Settings for each channel can be checked at a glance.

❑ Pitch bender and modulation button

- Plenty of tools to help take your music to new heights.

❑ 128 amazingly realistic tones and 8 exciting drum sounds

❑ Layer and Split Keyboard capabilities for play of two tones at the same time

- **Layer Function**
  Play two tones at the same time.
- **Split Function**
  Split the keyboard between two different tones.

❑ Magical Preset for a new dimension in keyboard play

- Perform such "magical" functions as play of a different chord each time you press a key, play of tones along with percussion sounds, and more!

❑ Musical pads

- Choose from among 30 set-ups.
- Phrases produced by pads automatically match the accompaniment chord being played.

❑ Enhanced auto-accompaniment function for greater versatility

- 100 built in auto-accompaniment patterns.
- Combine different rhythms to create your own patterns.
- Full-Range Chords allow both chord and melody play across the entire keyboard range.

❑ Song Memory

- Store up to six tracks for simultaneous playback.

❑ Touch Response

- Automatic adjustment of output to match keyboard pressure.

❑ Transpose Function

- An easy operation instantly changes the key of the keyboard.

❑ 10 versatile digital effects

- Choose from various reverb effects or even an rotating speaker effect.

❑ MIDI compatible

- Hook up to other MIDI devices and expand your creative potential.

❑ Registration Memory

- Store up to 10 set-ups for instant recall when you need them.

Safety Precautions

Symbols

Various symbols are used in this operating manual and on the product itself to ensure that the product is used safely and correctly, and to prevent injury to the user and other persons as well as damage to property. Those symbols along with their meanings are shown below.

WARNING
This indication stipulates matters that have the risk of causing death or serious injury if the product is operated incorrectly while ignoring this indication.

CAUTION
This indication stipulates matters that have the risk of causing injury as well as matters for which there is the likelihood of occurrence of physical damage only if the product is operated incorrectly while ignoring this indication.

Symbol Examples

This triangle symbol (△) means that the user should be careful. (The example at left indicates electrical shock caution.)

This circle with a line through it (⃠) means that the indicated action must not be performed. Indications within or nearby this symbol are specifically prohibited. (The example at left indicates that disassembly is prohibited.)

The black dot (●) means that the indicated action must be performed. Indications within this symbol are actions that are specifically instructed to be performed. (The example at left indicates that the power plug must be unplugged from the electrical socket.)

⚠ WARNING

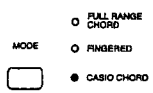
Please use caution regarding the handling of the AC adaptor.

- Do not use a voltage other than the indicated power supply voltage. Use of a voltage other than that indicated may cause fire or electrical shock.
- If the power cord should become damaged (exposed wires, disconnection, etc.), purchase a new AC adaptor. Use of a damaged power cord may cause fire or electrical shock.
- Do not cut or damage the power cord. Also do not place heavy objects on top of it or subject it to excessive heat. Damage to the power cord may cause fire or electrical shock.

- Do not attempt to shape the power cord or subject it to excessive bending, twisting or pulling. This may cause fire or electrical shock.
- Use only the AC adaptor that comes with the instrument. Use of another adaptor may cause fire, electrical shock, or malfunction.

4. Play a chord on the accompaniment keyboard (page E-32) to start play of the auto-accompaniment.
5. Continue pressing keys on the accompaniment keyboard.
6. To stop auto-accompaniment play, press START/STOP again.

To start an accompaniment with synchro start



1. Use the MODE button to select either CASIO CHORD or FINGERED.
2. Select a rhythm.
3. Press the SYNCHRO/ENDING button. At this time, the TEMPO indicator lights.

4. Play a chord on the accompaniment keyboard.
5. To stop the accompaniment pattern, press START/STOP again.

■ Adjusting the accompaniment volume (Page E-39)

Use the following procedure to set the volume that the accompaniment is played. You can set the volume to any value in the range of 000 to 127.

To adjust the accompaniment volume

1. Press the ACCOMP VOLUME button.
2. Use the 10-key pad to input a 3-digit number and specify the accompaniment volume level.

■ Using the musical pads (Page E-44)

To play a pad

Simply press one of the six pads to play the sound assigned to it.

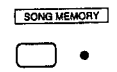
To change the pad functions

1. Press PAD button.
2. While the function set number is on the display, use the 10-key pad to input the number of the set of functions you want to change to.

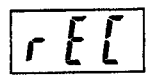
■ Using the Song Memory (Page E-55)

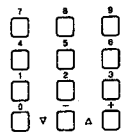
To record to Song Memory

1. Set up the keyboard to play the tune you want to play.



2. Press the SONG MEMORY button until the message rEC appears on the display.





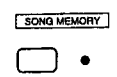
3. Use the 10-key pad to input 0 or 1 to specify the song number.

4. Press TR1 button to select track 1.

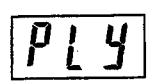
5. Press the START/STOP button to start recording.
6. Play the song that you want to record.

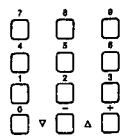
7. After the song is finished, press the START/STOP button to stop the recording operation.

To play back a song from Song Memory



1. Press the SONG MEMORY button until the message PLY appears on the display.





2. Use the 10-key pad to input 0 or 1 to specify the song number.
3. Press TR1 button to select track 1.

4. Press the START/STOP button to start playback.

❑ Touch Response

- Automatic adjustment of output to match keyboard pressure.

❑ Transpose Function

- An easy operation instantly changes the key of the keyboard.

❑ 10 versatile digital effects

- Choose from various reverb effects or even an rotating speaker effect.

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- Do not cut or damage the power cord. Also do not place heavy objects on top of it or subject it to excessive heat. Damage to the power cord may cause fire or electrical shock.
- Do not attempt to shape the power cord or subject it to excessive bending, twisting or pulling. This may cause fire or electrical shock.
- Use only the AC adaptor that comes with the instrument. Use of another adaptor may cause fire, electrical shock, or malfunction.

Do not place containers containing water or other liquids on the instrument.

- Do not place the following objects on the instrument. Placing such objects on the instrument may cause fire or electrical shock if they spill and get inside the instrument.
  - Containers filled with water or other liquids (including vases, potted plants, cups, cosmetics and medicines)
  - Small metal objects (including hairpins, sewing needles and coins)
  - Flammable objects

  In the event a foreign object should happen to get inside the instrument, please take the following actions:
  1. Turn power off.
  2. Unplug the AC adaptor from the wall outlet.
  3. If there are any batteries loaded in the keyboard, remove them.
     - Do not touch the batteries directly with your hands when removing them. They may be hot or battery fluid may be leaking from them.
  4. Consult with the dealer where you purchased the keyboard or with an authorized CASIO service provider.

Do not disassemble or modify the instrument.

- Never attempt of take apart or modify the instrument, its accessories, or separately sold options. Doing so may cause fire, electrical shock or malfunction. Consult your dealer concerning all inspection, adjustment or repair of internal components.

Do not use if there is an abnormality or malfunction.

- Do not use the instrument if there appear to be abnormalities such as the presence of smoke or abnormal odor. Also do not use the instrument if there appear to be malfunctions such as the power not coming on or sound not being produced. Use under such conditions may cause fire or electrical shock. In such cases, take the following actions immediately. Never attempt to repair the instrument yourself.
  1. Turn power off.
  2. Unplug the AC adaptor from the wall outlet.
  3. If there are any batteries loaded in the keyboard, remove them.
     - Do not touch the batteries directly with your hands when removing them. They may be hot or battery fluid may be leaking from them.
  4. Consult with the dealer where you purchased the keyboard or with an authorized CASIO service provider.

When the instrument has been dropped:

- In the case the instrument has been dropped or damaged, take the following actions. Continued use may cause fire or electrical shock.
  1. Turn power off.
  2. Unplug the AC adaptor from the wall outlet.
  3. If there are any batteries loaded in the keyboard, remove them.
     - Do not touch the batteries directly with your hands when removing them. They may be hot or battery fluid may be leaking from them.
  4. Consult with the dealer where you purchased the keyboard or with an authorized CASIO service provider.

Be careful of the bags around children.

- Never allow anyone to place the plastic bags of the instrument, its accessories, and its separately sold options over their heads. Doing so may cause suffocation. Particular caution is required in homes with small children.

⚠ CAUTION

AC Adaptor

- Do not locate the power cord in close proximity to heaters or other heating appliances. This may cause the cord to melt leading to possible fire or electrical shock.
- When unplugging the AC adaptor from an electrical outlet, always make sure to pull on the adaptor itself and not the cord. Pulling excessively on the cord may cause it to be damaged or break leading to possible fire or electrical shock.
- Do not touch the AC adaptor with wet hands when it is plugged in. This may cause electrical shock.

- When not using the instrument for an extended period such as when traveling, always make sure to unplug the AC adaptor from the electrical outlet for safety reasons.
- After use turn off the power switch of the instrument and unplug the AC adaptor from the electrical outlet.

Batteries

- Improper battery use may cause batteries to rupture and leak. This may cause injury, malfunction of the instrument or discoloration of furniture and other articles that come into contact with battery fluid. Take care to observe the following.
  - Install batteries so their polarity (+/–) matches that indicated on the instrument.
  - For safety and to prevent possible leakage of battery fluid, always make sure to remove batteries from the instrument when you do not plan to use it for a long time.
  - Always make sure that the batteries making up a set are all of the same type.
  - Never combine new batteries with old ones.
  - Never dispose of batteries by incinerating them. Never short or disassemble batteries, and do not expose them to excessive heat.
  - Replace dead batteries as soon as possible.
  - Never attempt to recharge batteries.

Transport

- When transporting the instrument, always make sure to unplug the AC adaptor from the electrical outlet and confirm that all other external connections have been disconnected. Only then should the instrument be transported. If the above is not done, the cord may be damaged leading to possible fire or electrical shock.

Care

- Whenever caring, make sure to first unplug the AC adaptor from the electrical outlet. Also remove the instrument's batteries if battery power is being used.

Location

- Never locate the instrument in areas subject to high humidity or heavy accumulation of dust. Doing so may cause fire or electrical shock.
- Never locate the instrument in areas subject to grease splatters or steam, such as in a kitchen or near a humidifier. Doing so may cause fire or electrical shock.

Do not place keyboard on lacquered furniture.

- The instrument's silicone rubber feet may eventually blacken or scar lacquered surfaces. Use felt cloth pads to insulate the feet or preferably use a CASIO musical instrument stand designed for your keyboard.

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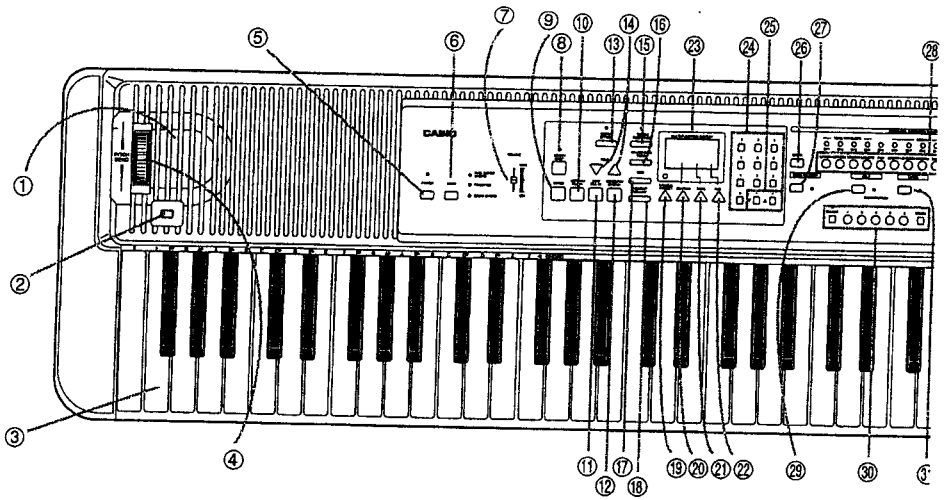
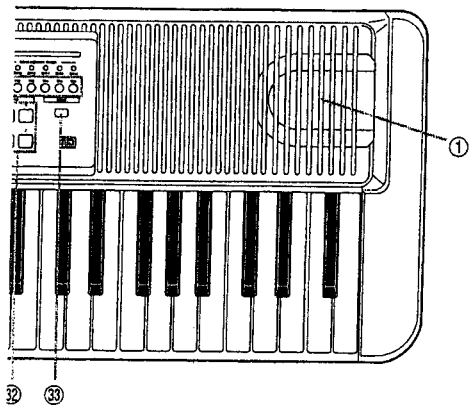
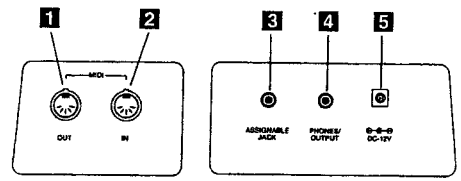
Control Locations

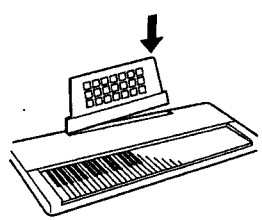




[Rear Panel]



Assembling the Music Stand
Firmly press the music stand provided with the keyboard all the way into the groove on the top of the keyboard. (First align the left end of the music stand with the left end of the groove, press it into the groove, and then press the right edge into the right end of the groove.)



① SPEAKER
② Modulation button
③ KEYBOARD
④ PITCH BEND wheel
⑤ POWER button
⑥ MODE button
⑦ VOLUME slider
⑧ START/STOP button
⑨ INTRO button
⑩ NORMAL/FILL-IN button
⑪ VARIATION/FILL-IN button
⑫ SYNCHRO/ENDING button
⑬ DIGITAL EFFECT button
⑭ TEMPO buttons
⑮ TOUCH RESPONSE button
⑯ TRANSPOSE/TUNING button
⑰ MIDI button

⑱ ACCOMP VOLUME button
⑲ MAGICAL PRESET button
⑳ RHYTHM button
㉑ TONE button
㉒ PAD button
㉓ MULTI FUNCTION DISPLAY
㉔ 10-key pad
㉕ [+] and [–] buttons
㉖ MIXER button
㉗ SONG MEMORY button
㉘ CHANNEL selectors
㉙ SPLIT button
㉚ LAYER button
㉛ REGISTRATION button
㉜ MUSICAL PAD buttons
㉝ DEMO button

1 MIDI OUT terminal
2 MIDI IN terminal
3 ASSIGNABLE JACK
For connection of an optional pedal (SP-2 or SP-10).
4 PHONES/OUTPUT jack
For connection of commercially available headphones. Output from speakers is automatically cut when headphones are connected.
5 DC12V jack
For connection of an optional AC adaptor (AD-12).

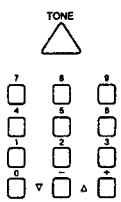
Quick Reference

This part of the manual provides a brief overview of keyboard operation. This is meant for experienced users, so be sure to read the rest of the manual for details before trying to actually use the keyboard.

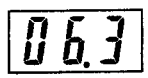
■ To switch power on and off (Page E-24)

Press the POWER button to switch power on and off.

■ To change tones (Page E-24)



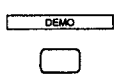
1. Press the TONE button.
2. Use the 10-key pad to input the 3-digit number that identifies the tone you want to select.



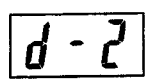
■ To switch Touch Response on and off (Page E-25)

Press the TOUCH RESPONSE button to switch Touch Response on and off.

■ To play the demo tunes (Page E-27)



Press the DEMO button to start and stop demo tune play.



■ Using effects (Page E-28)

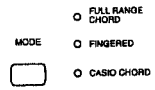
To select an effect

1. Press the DIGITAL EFFECT button to switch digital effects on.
2. Use the 10-key pad to input the number for the effect you want to use.

To switch effects on and off

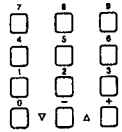
Press the DIGITAL EFFECT button to switch the currently selected effect on and off.

■ To select and play a rhythm (page E-29)

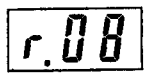


1. Use the MODE button to enter the NORMAL mode (all MODE indicators unlit).

2. Press the RHYTHM button.



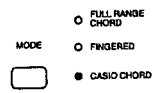
3. Use the 10-key pad to input the 2-digit rhythm number for the rhythm you want to use.



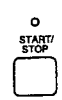
4. Press the START/STOP button to start play of the rhythm.
5. To stop rhythm play, press the START/STOP button again.

■ Using auto-accompaniment (page E-32)

To play a CASIO CHORD auto-accompaniment

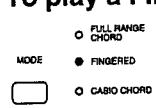


1. Use the MODE button to select CASIO CHORD.
2. Select an auto-rhythm.
3. Start play of the rhythm.
4. Press either one or up to four keys on the accompaniment keyboard (page E-32), and the corresponding accompaniment starts to play automatically.
5. Continue pressing different keys on the accompaniment keyboard.



6. To stop auto-accompaniment play, press START/STOP again.

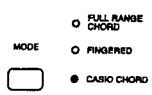
To play a FINGERED auto-accompaniment



1. Use the MODE button to select FINGERED.
2. Select an auto-rhythm.
3. Start play of the rhythm.

4. Play a chord on the accompaniment keyboard (page E-32) to start play of the auto-accompaniment.
5. Continue pressing keys on the accompaniment keyboard.
6. To stop auto-accompaniment play, press START/STOP again.

To start an accompaniment with synchro start



1. Use the MODE button to select either CASIO CHORD or FINGERED.
2. Select a rhythm.

3. Press the SYNCHRO/ENDING button. At this time, the TEMPO indicator lights.
4. Play a chord on the accompaniment keyboard.
5. To stop the accompaniment pattern, press START/STOP again.

■ Adjusting the accompaniment volume (Page E-39)

Use the following procedure to set the volume that the accompaniment is played. You can set the volume to any value in the range of 000 to 127.

To adjust the accompaniment volume

1. Press the ACCOMP VOLUME button.
2. Use the 10-key pad to input a 3-digit number and specify the accompaniment volume level.

■ Using the musical pads (Page E-44)

To play a pad

Simply press one of the six pads to play the sound assigned to it.

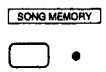
To change the pad functions

1. Press PAD button.
2. While the function set number is on the display, use the 10-key pad to input the number of the set of functions you want to change to.

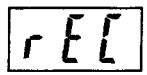
■ Using the Song Memory (Page E-55)

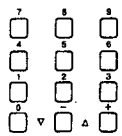
To record to Song Memory

1. Set up the keyboard to play the tune you want to play.



2. Press the SONG MEMORY button until the message rEC appears on the display.





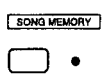
3. Use the 10-key pad to input 0 or 1 to specify the song number.

4. Press TR1 button to select track 1.

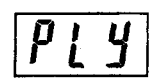
5. Press the START/STOP button to start recording.
6. Play the song that you want to record.

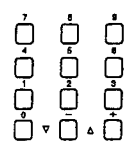
7. After the song is finished, press the START/STOP button to stop the recording operation.

To play back a song from Song Memory



1. Press the SONG MEMORY button until the message PLY appears on the display.





2. Use the 10-key pad to input 0 or 1 to specify the song number.
3. Press TR1 button to select track 1.

4. Press the START/STOP button to start playback.

■ Using Magical Presets (Page E-49)

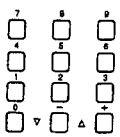
1. Press the MAGICAL PRESET button, and the number that identifies the current Magical Preset appears on the display.

2. Use the 10-key pad to input the number of the Magical Preset you want to change to.

3. The keyboard is now assigned the Magical Preset that you specified in the above procedure.

■ To tune the keyboard (Page E–65)

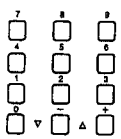
1. Press the TRANSPOSE/TUNE button until [tUn] appears on the display.



2. Use the 10-key pad's [+] and [–] buttons to tune the keyboard.

■ To transpose the keyboard (Page E–65)

1. Press the TRANSPOSE/TUNE button until [trn] appears on the display.



2. Use the 10-key pad's [+] and [–] buttons to select a key.

■ To set the touch sensitivity (Page E–66)

1. Press the TOUCH RESPONSE button.

2. Use the 10-key pad to input the number that identifies the touch sensitivity you want to use.

About settings and memory contents

- Whenever power is switched off by pressing the POWER button or by operation of the Auto Power Off function, tone and rhythm settings, Song Memory contents (page E-55), and Registration Memory contents (page E-52) are retained. All of these settings and memory data items are available when you switch power on again.
- The settings and data described above are retained while power is switched off as long as electrical power is supplied to the unit. This means that if you remove batteries or if batteries go dead, and you disconnect the unit from an external power supply (AC adaptor), settings and data stored in memory will all be lost.
- Note that the following settings are not retained when power is switched off, and they are initialized whenever you switch power on.

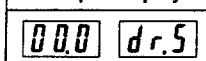
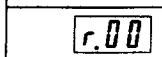
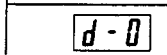
Setting	Initialized Default	Page
Displayed Number	Tone number	E-24
Transpose	0	E-65
Tuning	00	E-65
Local Control On/Off	On	E-77
Mixer parameter	• FtU, CtU, EP5: 127 • Auto accompaniment tones: default tones	E-36 E-40 E-47 E-60

■ General overview of the operation

This section provides a general overview of main operations. It mainly focuses on how the display shows data and how to change between different modes. Be sure to read this section before using the keyboard for the first time.

How the display shows data

The 3-digit display is used to show a variety of numeric data and other indicators. An indicator on the display also tells you what kind of data is currently displayed.

Sample Display	Indicator Meaning
	Tone number display
	Rhythm number display (standard)
Intro Normal Var Eng	Rhythm number display (for rhythm assigned to INTRO, NORMAL/FILL-IN, VAR/FILL-IN, or SYNCHRO/ENDING buttons). This display appears only when you press INTRO, NORMAL/FILL-IN, VAR/FILL-IN or SYNCHRO/ENDING, to identify the number of the rhythm assigned to the button. After a few seconds the display returns to the normal rhythm display.
● MAGICAL PRESET △	Magical Preset number display
	Demo tune number
	Musical Pad function number display

About the modes

With the keyboard, you must enter various modes in order to perform certain operations. This section describes the main modes of the keyboard.

Button	Mode	Description
MODE	NORMAL	The keyboard plays like a standard piano or organ. This mode is selected when all the MODE indicators are unlit.
MODE	CASIO CHORD	You can use the auto-accompaniment functions described on page E-32.
	FINGERED	You can finger chords as you normally do, and have the accompaniment pattern follow along with you (page E-33).
	FULL RANGE CHORD	You can use the entire range of the keyboard for FINGERED play and melody play (page E-38).
MAGICAL PRESET	MAGICAL PRESET	Use this mode to select the Magical Preset function you want to use (page E-49).
DEMO	DEMO	Use this mode to play the demo tunes (page E-27).
SONG MEMORY	SONG MEMORY	Use this mode to record songs to and play songs back from memory (page E-55).
MIDI	MIDI	This mode lets you set up the keyboard to exchange data with another MIDI device (page E-67).
SPLIT	SPLIT	Use this mode to split the keyboard between two different tones (page E-41).
LAYER	LAYER	Use this mode to assign two different tones to each keyboard key (page E-42).
DIGITAL EFFECT	DIGITAL EFFECT	Use this mode to select the digital effect you want to use (page E-28).
MUSICAL PAD	MUSICAL PAD	Use this mode to play 30 sets of phrases, sound effects, and percussion sounds (page E-44).

Part 2 Basic operations

This part of the manual provides you with the basic information you need to use your keyboard.

■ To switch power on and off

1. Press the POWER button to switch power on. The indicator above the button is lit while power is on.

2. Adjust the volume.

- Be sure to adjust the volume to a relatively low setting before playing the keyboard.

3. Press the keyboard keys.
   - Adjust the volume to the level you want while playing the keyboard.
   - Whenever you switch power on, the tone that was selected when you last switched power off is still selected.

4. To switch power off, press the POWER button again.

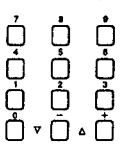
■ To change tones

1. Look at the tone list printed on the music stand and find the one you want.
   - A total of 128 tones and 8 drum sounds are available.

2. Press the TONE button.

- The number for the tone that is currently selected is shown on the display.

3. Use the 10-key pad to input the 3-digit number that identifies the tone you want to select.



- Use the numeric buttons to input a 3-digit number.
- You can also use the [+] and [–] buttons. Pressing [+] increases the displayed tone number by 1, while [–] decreases it.
- Be sure to always specify a 3-digit number.
- Input of any number greater than 135 is ignored.
- If you discover a mistake before you input the third digit, press the TONE button to return to the previously set tone number.

Digital Sampling

Number of the tones that are available with this keyboard have been recorded and processed using a technique called digital sampling. To ensure a high level of tonal quality, samples are taken in the low, mid, and high ranges and then combined to provide you with sounds that are amazingly close to the originals. You may notice very slight differences in volume or sound quality for some tones when you play them at different positions on the keyboard. This is an unavoidable result of multiple sampling, and it is not a sign of malfunction.

Polyphony

The term polyphony refers to the maximum number of notes you can play at the same time. This keyboard has 32-note polyphony, which includes the notes you play as well as the rhythms and auto-accompaniment patterns that are played by the keyboard. This means that when a rhythm or auto-accompaniment pattern is being played by the keyboard, the number of notes (polyphony) available for keyboard play is reduced. Also note that some of the tones offer only 16-note polyphony.

■ About drum sounds

Tone numbers 128 through 135 are drum sounds, that you can use to drum notes on the keyboard. When you select one of these tones, the display shows a value from [dr.0] through [dr.7] ("dr" indicating that these are drum sounds).
The percussion sounds that are available are illustrated on the keyboard's console. Note that the lower 7 keys and upper 16 keys that are not marked do not produce any drum sounds when pressed.

■ Touch Response

Touch Response makes it possible for the keyboard to match the power of the note produced with the amount of pressure you use to press the keyboard keys. Note that beginners or those with insufficient strength in their fingers can use the procedure to switch Touch Response off.

To switch Touch Response on and off

Press the TOUCH RESPONSE button to switch Touch Response on and off.

- When Touch Response is switched off, the notes produced by the keyboard are not affected by the keyboard pressure.
- Touch Response is on when the TOUCH RESPONSE indicator is lit.
- Touch Response is not applied to the accompaniment keyboard when you are using auto-accompaniment (page E-32). It is, however, applied to the melody keyboard.
- The TOUCH RESPONSE button is automatically deactivated whenever a demonstration tune is playing.
- You can also adjust the Touch Response sensitivity using the procedures described on page E-66.

■ Using the PITCH BEND wheel

Rotating the PITCH BEND wheel raises and lowers the pitch of the tones you play on the keyboard. Use it to add interesting effects to your performances.

Tones that are best suited for use with the PITCH BEND wheel

Use tones that continue to sound as long as you keep a keyboard key pressed, such as the STRINGS, SYNTH-LEAD and SYNTH BASS tones.

PITCH BEND wheel techniques

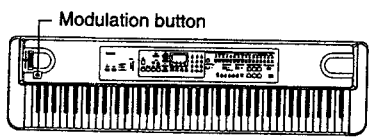
- You can add vibrato to a note by moving the PITCH BEND wheel slightly forward and back as the note is sounding. When you release the wheel, the note returns to its original status.
- Try changing the pitch of a note after it is sounding.
- Another interesting effect is produced by turning the PITCH BEND wheel before pressing the keyboard. Then, after the note starts to sound, either release the PITCH BEND wheel or change its setting.

Bend range

- The PITCH BEND wheel is initially set for a range of two semitones in either direction (up or down). You can increase this up to a range of 12 semitones (page E-78).

■ Using the modulation button

Pressing the modulation button while a note is sounding adds vibrato to the note. Vibrato is turned off when you release the modulation button.



• Applicable tones
Tones that continue to sound as long as a keyboard key is depressed. The modulation button is best used with wind instruments and synthetic reed instruments.

• Example
While depressing a keyboard key, press the modulation button to add vibrato.

• Vibrato depth adjustment
You can adjust the depth of the vibrato in steps of 50 cents (100 cents equals one semitone) within a range of 000 to 127. The initial setting is 64. For details on setting the vibrato depth, see "Modulation Depth" on page E-78.

Note
Pressing the modulation button while channel 10 (percussion-only channel) is selected does not apply vibrato to the percussion sound. However, the modulation data is output from the MIDI OUT terminal.

■ Playing the demo tunes

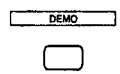
This keyboard comes with the following three pre-recorded demo tunes that you can use for practice or simply for your listening enjoyment.

Tune Number	Name	Composer	Play Time
0	VILLAGE WINGS	Kei Akagi	2:07
1	Talkin' Half The Night	Edward Alstrom	2:03
2	Clear as crystal	Hiroki Koga	1:46

- Note that you cannot start playback of a demo tune while you are recording to Song Memory (page E-55).

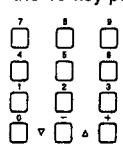
To start demo tune play

1. Switch power on and adjust the volume level.
2. Press the DEMO button.



- Demo tune play continues in a sequential endless loop until you switch it off.
- The number of the demo tune currently playing is shown on the display.
- You can play along on the keyboard while a demo tune is playing back.

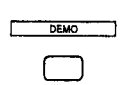
3. You can change the demo tune being played by pressing [+] (to advance) or [–] (to move back) in the 10-key pad.



- You can also use the 10-key pad's [0], [1] and [2] buttons to specify the demo tune number.

To stop demo tune play

Press the DEMO button again or START/STOP button to stop Demo tune play.



■ Using effects

A total of 10 digital effects can be applied to the keyboard's tone to create exactly the mood that you want for your music. Note that only one effect can be selected at a time.

Types of effects

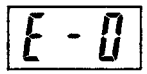
Effect	Effect Number	Description
REVERB 1	E-0	Deep reverb
REVERB 2	E-1	Medium reverb
REVERB 3	E-2	Shallow reverb
CHORUS	E-3	Adds depth and breadth to sound. Recommended for electric piano.
TREMOLO	E-4	Causes pulsating sound. Recommended for electric piano or vibraphone.
PHASE SHIFTER	E-5	Rotating effect
ORGAN SP	E-6	Like a rotating speaker on an electronic organ. Recommended for organ tones.
ENHANCER	E-7	Strong attack effect
FLANGER	E-8	Adds depth and sharpness. Recommended for bass sounds.
EQ LOUDNESS	E-9	Enhances low range.

- Digital effects are applied to notes played on the keyboard, pad sounds, rhythms, and auto-accompaniments.
- Effects E-3 through E-8 are quite strong, and may cause problems for the tone you are trying to play. When this happens, change the accompaniment mixer [Snd] setting to 000, which switches the rhythm and auto-accompaniment effects off (page E-37).
- Depending on the tone and rhythm you are using, the EQ LOUDNESS effect may cause distortion at high volume settings. When this happens, try lowering the volume.

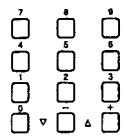
To select an effect

1. Press the DIGITAL EFFECT button to switch digital effects on.

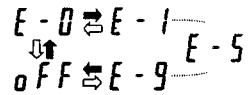
- When you do, the DIGITAL EFFECT indicator lights.



2. Use the 10-key pad to input the 1-digit number for the effect you want to use. To select REVERB 1, for example, input 0.



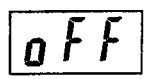
- You can also use the [+] and [–] buttons. Pressing [+] increases the displayed effect number by 1, while [–] decreases it.



- Preset effects are automatically selected whenever you play a demo tune. These presets cannot be changed or switched off during demo tune play.
- If you change the effect while a note is still sounding, the keyboard may make an irregular sound when the effect change is made.

To switch effects on and off

Press the DIGITAL EFFECT button to switch the currently selected effect on and off.

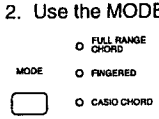


■ Playing rhythms

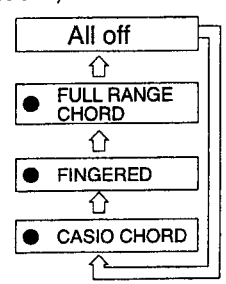
This keyboard features a collection of 100 exciting built-in rhythm patterns. Each pattern provides percussion back up for all your performances.

To select and play a rhythm

1. Make sure that power is switched on and that volume is adjusted to a comfortable level.
2. Use the MODE button to enter the NORMAL mode (all MODE indicators unlit).



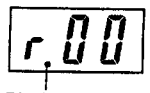
- Each time you press the MODE button, the status of the indicators changes as illustrated here.



3. Look at the rhythm list printed on the music stand and find the one you want.

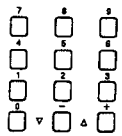
4. Press the RHYTHM button.

- When you do, the rhythm indicator lights.
- The number that appears on the display indicates the currently selected rhythm.

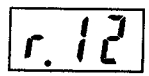


Rhythm indicator

5. Use the 10-key pad to input the 2-digit rhythm number for the rhythm you want to use. To select "12 8 BEAT 1", for example, input 1, 2.



- You can also use the [+] and [–] buttons. Pressing [+] increases the displayed rhythm number by 1, while [–] decreases it.
- Be sure to always specify a 2-digit number.
- If you discover a mistake before you input the second digit, press the RHYTHM button to return to the previously set rhythm number.

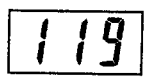


6. Press the START/STOP button to start play of the rhythm.

- When you do, the selected rhythm starts to sound, with the indicator above the START/STOP button flashes with each beat.

7. Use the TEMPO buttons to adjust the tempo of the rhythm.

- When you press one of the TEMPO buttons, the tempo setting appears on the display. The value indicates the number of beats per minute. The display returns to normal shortly after you release the TEMPO button.
- Each time you press one of the TEMPO buttons while the tempo value is displayed, the tempo setting changes one step, within the range of 40 to 255.
- Holding down either of the TEMPO buttons changes the tempo setting at high speed.
- To reset the tempo to the standard value of each rhythm, press both TEMPO buttons at the same time.
- Be sure to always specify a 3-digit number.



8. To stop rhythm play, press the START/STOP button again.

■ Improvising with the preset patterns

Pressing the START/STOP button to start rhythm play causes the normal version of the pattern to be played. You can also play a variation of the rhythm using the operation described below.

Important!

In addition to the variations described below, you can also assign specific rhythm types to each of INTRO, NORMAL/FILL-IN, VAR/FILL-IN, and SYNCHRO/ENDING buttons. See page E-48 for details.

	• Press this button while the normal rhythm pattern is playing in order to switch to the variation pattern. • If you press this button while the variation pattern is playing, a one-measure fill-in pattern is played and then play of variation pattern continues.
	• Press this button while the variation rhythm pattern is playing in order to switch to the normal pattern. • If you press this button while the normal pattern is playing, a one-measure fill-in pattern is played and then play of normal pattern continues.

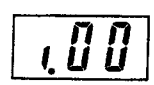
- Note that fill-in patterns can logically be inserted at specific locations inside a chord progression. Because of this, the fill-in pattern may not sound immediately when you press a fill-in button. Instead, it will sound at the next location that a fill-in pattern is possible.

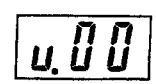
To play intro and ending patterns

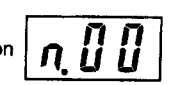
	• When no rhythm is playing, press the INTRO button instead of the START/STOP button. When you do, an intro pattern is played to start the normal version of the selected rhythm pattern. • To start play of the variation pattern, press INTRO and then VAR/FILL-IN.
	• While a rhythm is playing, pressing SYNCHRO/ENDING instead of START/STOP plays an ending pattern, after which play of the pattern stops.

Display Data

Pressing any of the above buttons causes the following indication.

INTRO button 

VAR/FILL-IN button 

NORMAL/FILL-IN button 

SYNCHRO/ENDING button

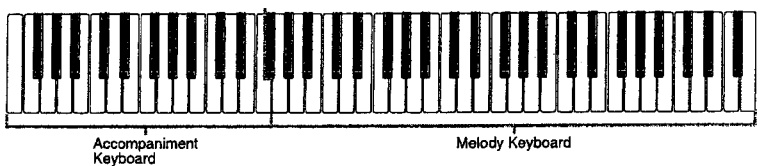
- Each of the buttons can be assigned a different rhythm (page E-48). The number that appears on the display is the number of the rhythm assigned to the button you press.

■ Using auto-accompaniment

This keyboard features 100 accompaniment patterns that let you add full accompaniments to your performances automatically. With auto-accompaniment, part of the keyboard is reserved as an accompaniment keyboard. As you play your chords on the accompaniment keyboard, the accompaniment patterns adjusts automatically to follow the progression you play.
You get a choice between two different methods for chord play. FINGERED lets you play chords as you normally do, while CASIO CHORD makes it possible to play fully formed chords with one finger. Note that this keyboard also features a FULL RANGE CHORD system (page E-38) that lets you use the entire keyboard for chord and melody play.

About the accompaniment keyboard

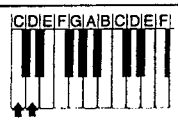
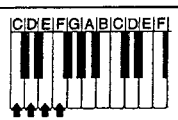
The lower 26 keys are reserved for use as an accompaniment keyboard whenever you select CASIO CHORD or FINGERED with the MODE button. The panel above the accompaniment keyboard keys is marked with the names of the notes they play. The remainder of the keyboard (the part that is not included in the accompaniment keyboard) is called the melody keyboard. Please be sure to remember these terms, because they will be used throughout the rest of this manual.



Accomp/Melody Keyboard

Using the CASIO CHORD system

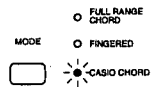
The CASIO CHORD system lets you easily play the four main types of chords. Play of chords is simplified as shown in the chart below.

Keys	Chord Type	Example
Pressing **one** accompaniment keys	Major chord	C (C Major Chord)
Pressing **two** accompaniment keys	Minor chord	Cm (C Minor Chord) 
Pressing **three** accompaniment keys	Seventh chord	C7 (C Seventh Chord)
Pressing **four** accompaniment keys	Minor seventh chord	Cm7 (C Minor Seventh Chord) 

Note
The bottom (leftmost) note that you play determines the name of the chord. If the bottom note is a C for example, the keyboard produces a C chord.

To play a CASIO CHORD auto-accompaniment

1. Use the MODE button to select CASIO CHORD.



2. Select an auto-rhythm as described under "To select and play a rhythm" on page E-29.
3. Start play of the rhythm.

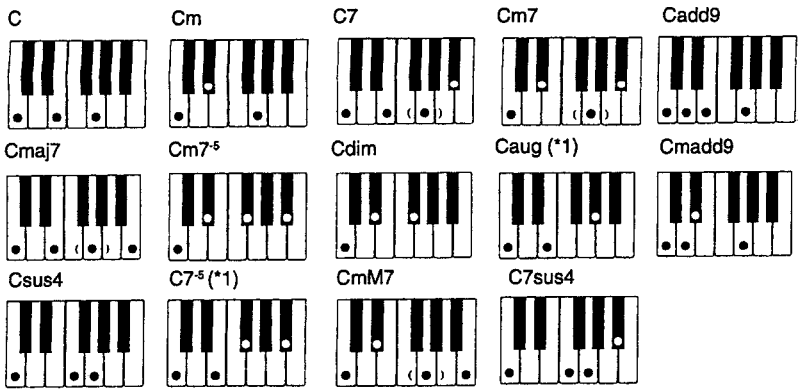
- If you want start play of the normal rhythm pattern, press START/STOP.

- To start play of the variation rhythm pattern, press VAR/FILL-IN.
- You can also use synchro start (page E-35) to start rhythm play.

4. Press either one or up to four keys on the accompaniment keyboard, and the corresponding accompaniment starts to play automatically.
5. Continue pressing different keys on the accompaniment keyboard to play your chord progression.
6. To stop auto-accompaniment play, press START/STOP again.

Using standard fingerings

The FINGERED mode lets you play a wider variety of chords. In this mode, you can start play of an accompaniment pattern by pressing three or four of the accompaniment keyboard keys.
This keyboard is capable of recognizing 14 different chords. The following shows the fingerings of these chords with a root of C. Note that you can omit the fifth notes (which are shown inside parentheses in the illustrations below) to produce 7, m7, maj7 and mM7 chords.



*1 With these chords, the lowest note in your fingering is always used as the root. Make sure that your fingering correctly identifies the root you want to use.

Important!
If you play one or two notes only in the left hand, or three notes that do not make up a recognizable chord formation (for example, C-D-D#), no sound will be produced. FINGERED MODE requires a conventional three or four-note chord formation to produce an auto-accompaniment. Also, note that auto-chords only work in conjunction with rhythm patterns, and not independently of them.

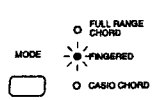
Notes

- The above examples show only one of the possible fingerings for each chord. Note that you can play the notes that form a chord in any combination. Each of the following fingerings for example, produces the same C chord.

- See the "Fingered Chord chart" on page A-7 for information on the fingerings of chords for all roots.

To play a FINGERED auto-accompaniment

1. Use the MODE button to select FINGERED.



2. Select an auto-rhythm as described under "To select and play a rhythm" on page E-29.

3. Start play of the rhythm.

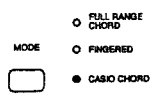
- If you want start play of the normal rhythm pattern, press START/STOP.

- To start play of the variation rhythm pattern, press VAR/FILL-IN.
- You can also use synchro start to start rhythm play.

4. Play a chord on the accompaniment keyboard to start play of the auto-accompaniment.
5. Continue pressing keys on the accompaniment keyboard to play your chord progression.
6. To stop auto-accompaniment play, press START/STOP again.

To start an accompaniment with synchro start

1. Use the MODE button to select either CASIO CHORD or FINGERED.



2. Select a rhythm using the procedure described under "To select and play a rhythm" on page E-29.
3. Press the SYNCHRO/ENDING button. At this time the TEMPO indicator lights.

- If you want to start out with the variation pattern of the selected rhythm, press VAR/FILL-IN here.

4. Play a chord on the accompaniment keyboard and the accompaniment pattern starts to play.

Improvising with the preset accompaniment patterns

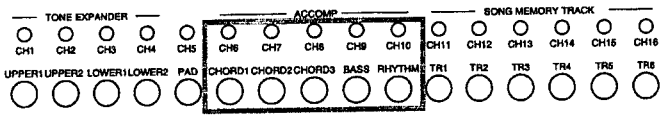
You can use intro, fill-in, variation, and ending operations (see "Improvising with the preset patterns" on page E-30) with auto-accompaniment. Note the following when using intro and ending patterns.

- When an intro pattern is playing, the final measure of the pattern is indicated by the tempo indicator speeding up. This signals you to get ready to start playing.
- Intro patterns are available in major chord and minor chord versions. The keyboard automatically selects the appropriate version in accordance with the chord you play to start the accompaniment pattern.

- Ending patterns are also available in major chord and minor chord versions. The keyboard automatically selects the correct version in accordance with the last chord you play at the end of the accompaniment.

■ Switching auto-accompaniment parts on and off

Use the five part buttons to switch auto-accompaniment parts on and off.


TONE EXPANDER
ACCOMP
SONG MEMORY TRACK
CH1 CH2 CH3 CH4 CH5 CH6 CH7 CH8 CH9 CH10 CH11 CH12 CH13 CH14 CH15 CH16
UPPER1 UPPER2 LOWER1 LOWER2 PAD CHORD1 CHORD2 CHORD3 BASS RHYTHM TR1 TR2 TR3 TR4 TR5 TR6

Each time you press a button, its part switches on and off. If the auto-accompaniment is not playing, the indicator above each button is lit if the part is switched on and not lit if the part is switched off. While the auto-accompaniment is playing, the indicators light while that particular part is sounding.

Note

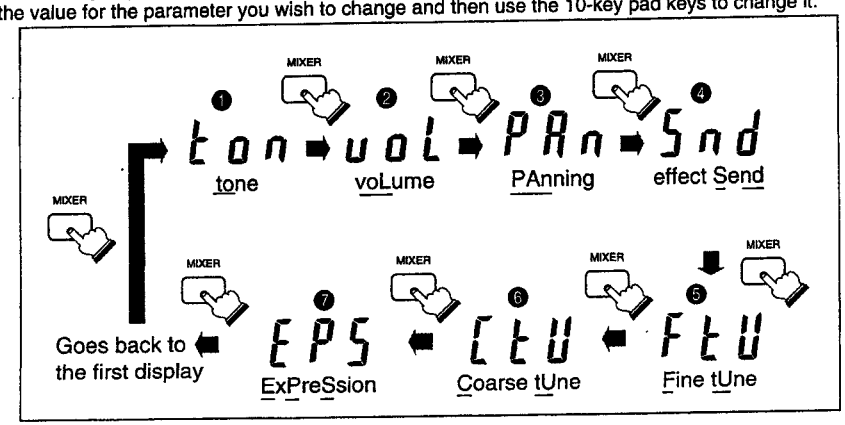
With some auto-accompaniment, some parts contain all rests. This means that though the indicator above the button that controls such a part is lit while auto-accompaniment is not playing, nothing sounds for that part when you start auto-accompaniment play. One example of such a part is CHORD3 of 19 LATIN FUSION.

■ Mixer (Accomp mixer)

The Mixer function lets you control tone, volume, stereo position (panning), tuning, effect intensity, and expression for each of the five parts of an auto-accompaniment. Use the MIXER button to select the parameter you want to adjust.

How Mixer works

Each time you press the MIXER button, the display changes in the sequence shown below. Display the value for the parameter you wish to change and then use the 10-key pad keys to change it.



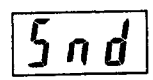
Message	Meaning	Setting Range
ton	Tone selection for each channel	000 to 127, dr 0 to dr 7.
uoL	Volume setting for each channel	000 (min) to 127 (max)
PAn	Stereo position (position between speakers where sound is hear)	000 (left side) to 127 (right side)
Snd	Effect depth	000 (min) to 127 (max)
FtU	Fine tuning of each channel	–50 to 50
CtU	Rough tuning of each channel	–12 to 12
EPS	Expression setting of each channel	000 to 127

The following example operation shows how to change the effect parameter only. Operation is identical for all of the other parameters, except for the range of the settings as shown in the table above.

To change a Mixer parameter

1. Press the MIXER button until the display for the parameter you want to change appears.

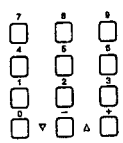
- Here we will change the effect volume for the Chord 2 part from 100 to 118, so press MIXER four times.



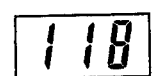
2. Press the part button for the part whose parameter you want to change.

- The indicator above the part button you press starts to flash.

3. Use the 10-key pad to input the 3-digit number for the effect volume value you want to use. In this example, we will input a value of 118.



- You can also use the [+] and [–] buttons. Pressing [+] increases the displayed effect volume value by 1, while [–] decreases it.
- Remember that you have five seconds after pressing the MIXER button to input the first digit or press a part button. You also have five seconds after pressing a part button to input the first digit. Otherwise, the value will disappear from the display, and you will have to press the MIXER button again to start again.



4. Repeat steps 1–3 for other parts if you want.

Using Full-Range Chords

This function lets you use the entire range of the keyboard for play of accompaniment and melody. Unlike the FINGERED mode, the melody can be played in the accompaniment keyboard range, and chords can be played in the range of the melody keyboard.

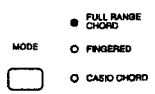
To play a FULL RANGE CHORD auto-accompaniment

When three or more keys are pressed at the same time on the keyboard, a chord will be specified in the case the combination of those keys corresponds to any of the chords that are able to be determined by this instrument.

Chords that can be Determined by this Instrument

Fingered Chords	14 types (see page E-34)
Other Chords	23 types The following illustrates an example in which "C" is taken to be the root. $\frac{D^{\flat}}{C}$, $\frac{D}{C}$, $\frac{E}{C}$, $\frac{F}{C}$, $\frac{G}{C}$, $\frac{A^{\flat}}{C}$, $\frac{B^{\flat}}{C}$, $\frac{B}{C}$, $\frac{D^{\flat}m}{C}$, $\frac{Dm}{C}$, $\frac{Fm}{C}$, $\frac{Gm}{C}$, $\frac{Am}{C}$, $\frac{B^{\flat}m}{C}$, $\frac{Dm^{\flat 5}}{C}$, $\frac{A^{\flat 7}}{C}$, $\frac{F7}{C}$, $\frac{Fm7}{C}$, $\frac{Gm7}{C}$, $\frac{A^{\flat}add9}{C}$ C_6, Cm_6, C_{69}

1. Use the MODE button to select FULL RANGE CHORD.



2. Select an auto-rhythm as described under "To select and play a rhythm" on page E-29.

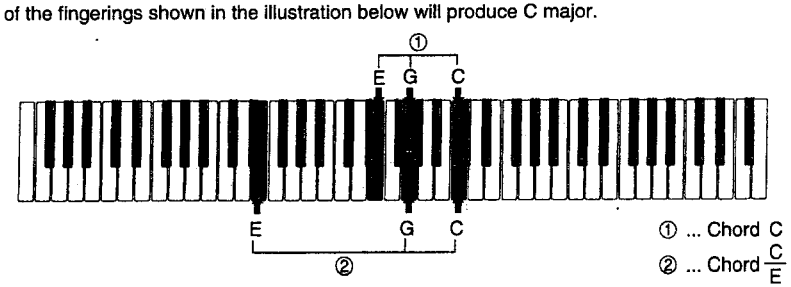
3. Start play of the rhythm.

- If you want start play of the normal rhythm pattern, press START/STOP.
- You can also use synchro start (page E-35) to start rhythm play.

4. Play the song on the keyboard.
   - Anything you play using one or two keys at the same time is considered to be part of the melody, and so the corresponding notes sound as you play them.
   - Anything you play using three or more keys at the same time is considered to be part of the accompaniment, and so the matching chord (using the same fingerings as FINGERED) is played.

<Example> To play the chord C major

Any of the fingerings shown in the illustration below will produce C major.

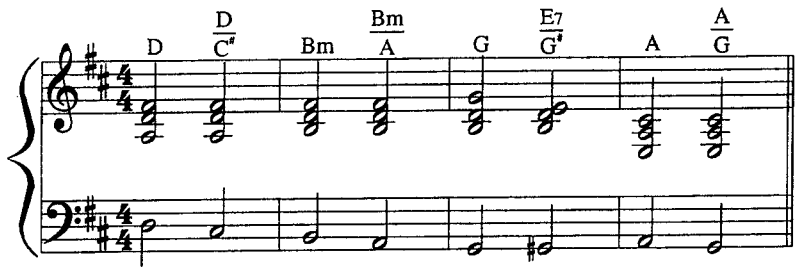


Notes

- As with the FINGERED mode (page E-33), you can play the notes that form a chord in any combination.
- When the composite notes of a chord are separated by five or more notes, the lowest sound becomes the root.

Try playing the following piece using FULL RANGE CHORD.

<Music Example> Tone: 016 ELEC. ORGAN
Rhythm: 04 BALLAD
Tempo: 070



■ Adjusting the accompaniment volume

Use the following procedure to set the volume that the accompaniment is played. You can set the volume to any value in the range of 000 to 127.

To adjust the accompaniment volume

1. Press the ACCOMP VOLUME button.

2. Use the 10-key pad to input a 3-digit number and specify the accompaniment volume level.
   - Be sure to specify a 3-digit number.
   - Pressing [+] and [–] at the same time sets the accompaniment volume to 100. All accompaniment volume channels are also set to 100.
   - Remember that you have about five seconds after pressing the ACCOMP VOLUME button to input the first digit. Otherwise, the accompaniment number will disappear from the display, and you will have to press the ACCOMP VOLUME button again to get it back.

Part 3 Advanced Operations

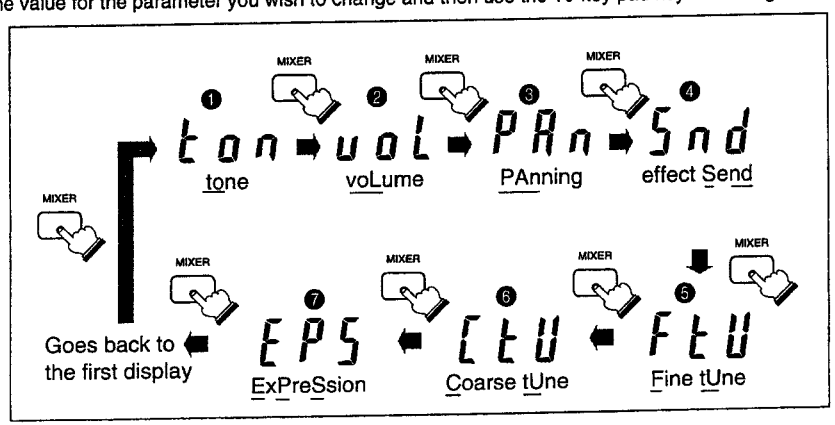
This part of the manual describes the more advanced features and functions of the keyboard. Using these features effectively helps to add something extra to your performances.

■ Mixer (Tone Expander)

Split and layer operate in accordance with the combined settings of Mixer CH1 (UPPER1) through CH4 (LOWER2). The Mixer function can be used to change the tone, volume, panning, tuning, effect depth, and expression settings of CH1 through CH4.

How Mixer works

Each time you press the MIXER button, the display changes in the sequence shown below. Display the value for the parameter you wish to change and then use the 10-key pad keys to change it.

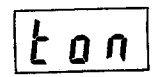


Message	Meaning	Setting Range
tone	Tone selection for each channel	000 to 127, dr 0 to dr 7.
voL	Volume setting for each channel	000 (min) to 127 (max)
PAn	Stereo position (position between speakers where sound is hear)	000 (left side) to 127 (right side)
Snd	Effect depth	000 (min) to 127 (max)
FtU	Fine tuning of each channel	–50 to 50
CtU	Rough tuning of each channel	–12 to 12
EPS	Expression setting of each channel	000 to 127

The following example operation shows how to change the tone parameter only. Operation is identical for all of the other parameters, except for the range of the settings as shown in the table above.

To change a Mixer parameter

1. Press the MIXER button until tone appears on the display.



MIXER

2. Press the CH1 (UPPER1) button.

flash CH1 UPPER1

- At this time the indicator above the CH1 button starts to flash.
- The number for the tone that is currently selected is shown on the display.
- If you do not perform any operation within five seconds after pressing the CH1 button, the display changes back to what it was showing before you pressed the MIXER button.

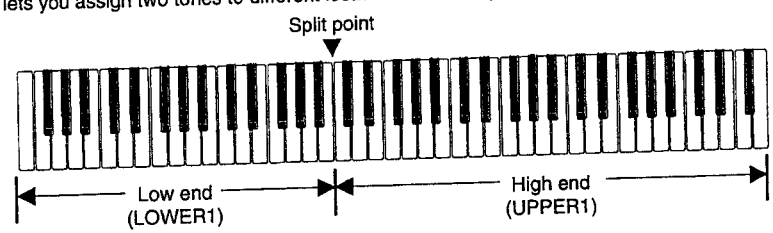
3. Use the 10-key pad to input a 3-digit tone number.

- As an example we will change the tone setting for CH1 (UPPER1) to FLUTE (tone number 073)
- You can also use the [+] and [–] buttons to increment and decrement the displayed value.
- If you do not input anything within about five seconds after inputting the first digit, the display automatically returns to the number shown in step 2.

4. Repeat steps 1 through 3 if you want to set other parameters.

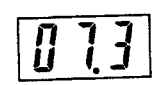
■ Using the Split function

Split lets you assign two tones to different locations on the keyboard.

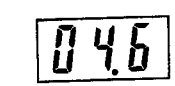


To split the keyboard

1. Use the procedure under "To change a Mixer parameter" to assign the high end tone to CH1 (UPPER1), and low end tone to CH3 (LOWER1).



2. Press the SPLIT button.



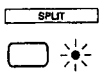
SPLIT

- When you do the SPLIT indicator lights.
- Check to make sure that the indicators for the parts that you want to sound are lit above buttons CH1 (UPPER1) through CH4 (LOWER2). A part is not sounding if the indicator above its button is off. Press the button to turn the indicator on to make the part sound.

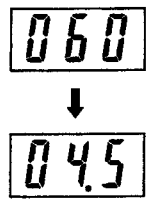
The keyboard is now split in the center, at the point shown in the illustration above.

To change the location of the split point

1. While holding down the SPLIT button, press the keyboard key where you want the far left key of the high end to be.



- The note number is shown on the display while the SPLIT button is depressed.



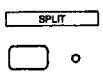
- The 76 keys of the keyboard are numbered, left to right, from 028 to 103.

The keyboard is now split to the left of the keyboard key you pressed in the above procedure.

Important!
The SPLIT button cannot be used during play along with demo tunes, Magical Preset or while recording to Song Memory.

To unsplit the keyboard

Simply press the SPLIT button so that the SPLIT indicator goes out.



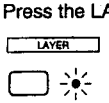
■ Using the Layer function

Layer makes it possible to play two different tones at the same time by pressing a single key.

To layer tones

1. Use the procedure under "To change a Mixer parameter" to assign the tones you want to layer to CH1 (UPPER1) and CH2 (UPPER2)
   - As an example, we will assign STUDIO PIANO (tone number 002) to CH1 (UPPER1) and SYNTH-STR2 (tone number 051) to CH2 (UPPER2).

2. Press the LAYER button.



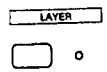
- When you do the LAYER indicator lights.
- Check to make sure that the indicators for the parts that you want to sound are lit above buttons CH1 (UPPER1) through CH4 (LOWER2). A part is not sounding if the indicator above its button is off. Press the button to turn the indicator on and to make the part sound.

Now when you play any keyboard key, both tones that you assigned in the above procedure sound.

Important!
The LAYER button cannot be used during play along with demo tunes, Magical Preset or while recording to Song Memory. Also note that layering causes a reduction in polyphony (to 8-, 10- or 16-note polyphony, depending on the tones that you layer).

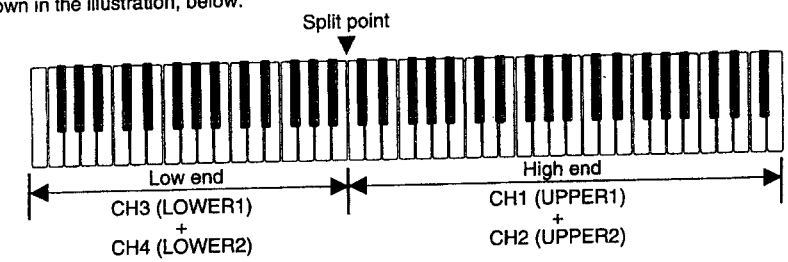
To unlayer the keyboard

Simply press the LAYER button so that the LAYER indicator goes out.



■ Using Split and Layer together

You can also use Split and Layer in combination, which results in a split keyboard configuration where the layering for the high end of the keyboard is different from the layering at the low end, as shown in the illustration, below.

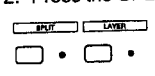


To split and layer the keyboard

1. Assign high end tones to CH1 (UPPER1) and CH2 (UPPER2) or low end tones to CH3 (LOWER1) and CH4 (LOWER2).
   - As an example, we will assign the following tones.

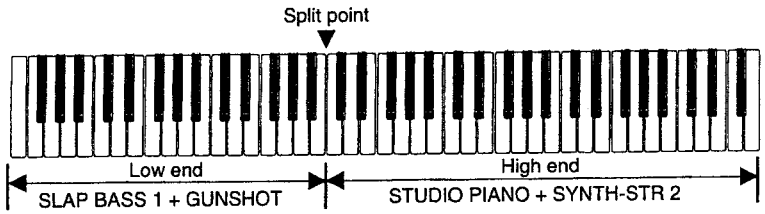
   CH1 (UPPER1) ... STUDIO PIANO (tone number 002)
   CH2 (UPPER2) ... SYNTH-STR 2 (tone number 051)
   CH3 (LOWER1) ... SLAP BASS 1 (tone number 036)
   CH4 (LOWER1) ... GUNSHOT (tone number 127)

2. Press the SPLIT and LAYER buttons.



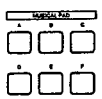
- When you do the SPLIT and LAYER indicators light.
- Check to make sure that all indicators above buttons CH1 (UPPER1) through CH4 (LOWER2) are lit. A part is not sounding if the indicator above its button is off. Press the button to turn the indicator on to make the part sound.

The keyboard is now split and layered in the configuration illustrated below.



■ Using the musical pads

The musical pads put a variety of useful sound effects and controls at your fingertips. You get a choice of 30 sets of sound effects and controls (see pages E-45 and E-46 for a full list) that you can assign to the pads. Once you set the pads to the functions that you want, they are always on hand whenever you need them.



Types of operations available for the pads

Function	Function Numbers	Description
Phrases	00 to 21	Short musical phrases that correspond to the auto-accompaniment chord being played (Chord Match). After assigning pad function numbers, pressing a pad (Pad A through Pad F) plays one of six different phrases.
Percussion/ Sound Effects	22 to 29	Percussion and sound effects

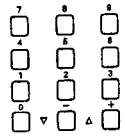
To change the pad functions

1. Look at the pad function list printed on the keyboard's music stand and find the one you want to assign to the pads.
   - Here we will assign set 05, which is ROCK 1.

2. Press the PAD button.

   - The currently assigned function number appears on the display.

3. While the function set number is on the display, use the 10-key pad to input the number of the set of functions you want to change to.



   - You can also use the [+] and [–] buttons to increment and decrement the displayed value.
   - The transpose setting (page E-65) also affects pad sounds.
   - Any input value that is outside the allowable input range is ignored.
   - To change a setting back to its original value, press the PAD button before you input the second digit. This returns to step 1 of the above procedure.

The following lists show each of the sounds and controls that can be assigned to the pads. Note that assignment is made in sets of 6. You cannot assign to each pad individually.

[Phrases]
Numbers in parentheses are tone numbers

00 A BRASS(061) D SYNTH-LEAD2(081)	B METAL LEAD(084) E PICCOLO(072)	C TRUMPET(056) F TRUMPET (056)	11 A TROMBONE(057) D CLARINET(071)	B BRASS(061) E ALTO SAX(065)	C TRUMPET(056) F TRUMPET(056)
01 A RECORDER(074) D ELEC PIANO(005)	B ELEC PIANO(005) E ELEC PIANO(005)	C PAN FLUTE(075) F ATOMOSPHERE(099)	12 A MUTE GUITAR(028) D FLUTE(073)	B SOPRANO SAX(064) E MUTE TRUMPET(059)	C TENOR SAX(066) F JAZZ GUITAR(026)
02 A BRASS(061) D PAN FLUTE(075)	B PIANO(000) E CRYSTAL(098)	C SYNTH-BASS 1(038) F ANGEL CHOIR(085)	13 A SYNTH-LEAD 2(081) D MUTE GUITAR(028)	B CLAVELECTRO(007) E SYNTH-LEAD 2(081)	C PIANO(000) F ROCK ORGAN(018)
03 A BRASS(061) D BRASS(061)	B HARP(046) E STRINGS 1(048)	C SYNTH-BRASS 1(062) F ANGEL CHOIR(085)	14 A CLARINET(071) D PICCOLO(072)	B CLARINET(071) E PICCOLO(072)	C CLARINET(071) F MUSIC BOX(010)
04 A RECORDER(074) D CRYSTAL(098)	B CHOIR(052) E PIANO(000)	C ALTO SAX(065) F ALTO SAX(065)	15 A TRUMPET(056) D FRENCH HORN(060)	B STRINGS 2(048) E FLUTE(073)	C PIANO(000) F OBOE(068)
05 A ROCK ORGAN(018) D ROCK ORGAN(018)	B ROCK ORGAN(018) E ROCK ORGAN(018)	C ROCK ORGAN(018) F ROCK ORGAN(018)	16 A STRINGS 1(048) D FLUTE(073)	B FLUTE(073) E MUTE TRUMPET(059)	C MARIMBA(012) F PICCOLO(072)
06 A DIST GUITAR 1(029) D DIST GUITAR 1(029)	B DIST GUITAR 2(030) E DIST GUITAR 2(030)	C DIST GUITAR 2(030) F HONKY-TONK 2(003)	17 A BRASS(061) D BRASS(061)	B PICCOLO(072) E HARD PIANO(001)	C HARD PIANO(001) F CLAVELECTRO(007)
07 A HARD PIANO(001) D HARMONICA(022)	B HARMONICA(022) E DIST GUITAR 1(029)	C DIST GUITAR 1(029) F DIST GUITAR 1(029)	18 A VIOLIN(040) D VIOLIN(040)	B JAZZ GUITAR(026) E JAZZ GUITAR(026)	C ELEC GUITAR(027) F PIANO(000)
08 A BRASS(061) D BRASS(061)	B BRASS(061) E TENOR SAX(066)	C HARD PIANO(001) F HARD PIANO(001)	19 A FLUTE(073) D FLUTE(073)	B ALTO SAX(065) E CHOIR(052)	C JAZZ ORGAN(017) F SAMISEN(106)
09 A TROMBONE(057) D TRUMPET(056)	B BRASS(061) E ALTO SAX(065)	C PIANO(000) F PIANO(000)	20 A PIANO(000) D PIANO(000)	B VIBRAPHONE(011) E JAZZ ORGAN(017)	C GUT GUITAR(024) F SPACE CHORUS(091)
10 A VIBRAPHONE(011) D JAZZ GUITAR(026)	B TROMBONE(057) E TRUMPET(056)	C TENOR SAX(066) F CLARINET(071)	21 A TRUMPET(056) D TRUMPET(056)	B TRUMPET(056) E TRUMPET(056)	C TRUMPET(056) F TRUMPET(056)

[Percussion/Sound Effects]

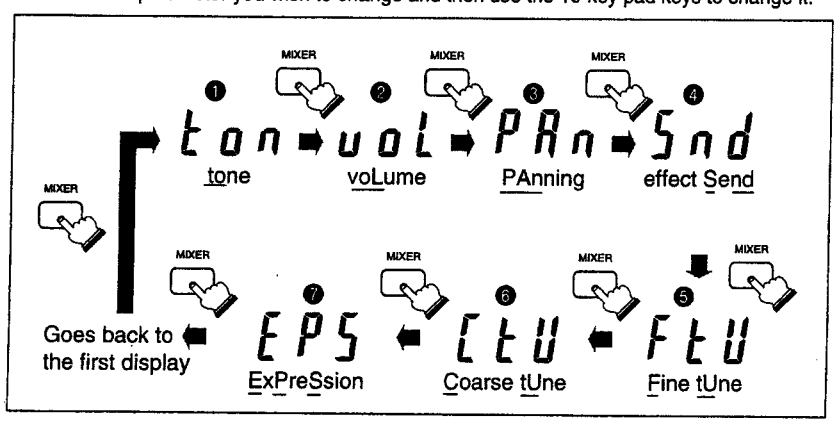
22	A DRUM SET 0	B DRUM SET 0	C DRUM SET 0	26	A BASS DRUM	B HI-HAT - CLOSED	C CLASH 1
	D DRUM SET 0	E DRUM SET 0	F DRUM SET 0		D SNARE	E HI-HAT - OPEN	F CRASH 2
23	A DRUM SET 0	B DRUM SET 0	C DRUM SET 0	27	A CONGA - HIGH	B BONGO - HIGH	C CONGA - LOW
	D DRUM SET 0	E DRUM SET 0	F DRUM SET 0		D CONGA - LOW	E BONGO - LOW	F WHISTLE(LONG)
24	A BASS DRUM	B HI - HAT - CLOSED	C TOM - HIGH	28	A TIMBALE - HIGH	B AGOGO - HIGH	C CUICA - MUTE
	D SNARE	E HI - HAT - OPEN	F TOM - LOW		D TIMBALE - LOW	E AGOGO - LOW	F CUICA - OPEN
25	A BASS DRUM	B HI - HAT - CLOSED	C TOM - HIGH	29	A APPLAUSE	B GUNSHOT	C BIRD
	D SNARE	E HI - HAT - OPEN	F TOM - LOW		D HELICOPTER	E TELEPHONE	F SEASHORE

Changing the musical pad parameters

Use the Mixer to change the volume, stereo position, effect depth, fine tuning, coarse tuning and expression settings of the pads.

How Mixer works

Each time you press the MIXER button, the display changes in the sequence shown below. Display the value for the parameter you wish to change and then use the 10-key pad keys to change it.



Message	Meaning	Setting Range
ton	Cannot be used for musical pads.	
vol	Volume setting for each channel	000 (min) to 127 (max)
PAn	Stereo position (position between speakers where sound is hear)	000 (left side) to 127 (right side)
Snd	Effect depth	000 (min) to 127 (max)
FtU	Fine tuning of each channel	–50 to 50
CtU	Rough tuning of each channel	–12 to 12
EPS	Expression setting of each channel	000 to 127

The following example operation shows how to change the volume only. Operation is identical for all of the other parameters, except for the range of the settings as shown in the table above.

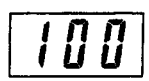
To set musical pad parameters

Here we will set the volume parameter of a musical pad as an example.

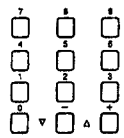
1. Press the MIXER button until [vol] appears on the display.

2. Press the CH5 (PAD) button.

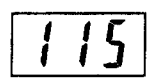
- This causes the indicator above the CH5 (PAD) button to flash and the current volume setting to appear on the display.



3. Use the 10-key pad to input the volume level you want to set.



- You can also use the [+] and [–] buttons.



Repeat steps 1 through 3 to set the other parameters.

Notes

- The tempo (speed) of each phrase can be adjusted using the TEMPO buttons.
- The transpose operation (page E-65) also affects phrases.

■ Assigning rhythms to the Intro, Variation, and Ending Buttons

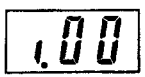
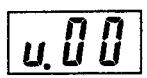
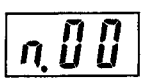
Normally when you press an Intro, Variation, or Ending button, a corresponding pattern is played to match the main rhythm that you are currently using. Using the procedure described below, however, you can assign any of the 100 rhythms to each of the Intro, Fill-In, and Ending buttons. When you do, a pattern that matches the preset rhythm sounds when you press the button.

To change the Intro, Fill-In, and Ending button rhythm assignments

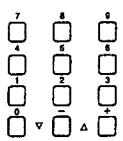
1. Press the INTRO, NORMAL/FILL-IN, VAR/FILL-IN or SYNCHRO/ENDING button whose rhythm you want to change and the number that identifies the rhythm currently assigned to the button appears on the display.

   - The number remains on the display for about two seconds.

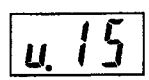
   - The following table shows how the display changes whenever any of the above buttons are pressed.

INTRO	 Current rhythm number setting	VAR/ FILL-IN	
NORMAL/ FILL-IN		SYNCHRO/ ENDING	

2. While the rhythm number is on the display, use the 10-key pad to input the number of the rhythm you want to change to.



   - Remember that you have two seconds after pressing the button to input the first digit. Otherwise, the rhythm number will disappear from the display, and you will have to press the button again to get it back.



- Whenever you change to a different main rhythm, all of above buttons automatically change to the new rhythm.
- You can also change the rhythm assigned to the NORMAL/FILL-IN button. When you do, however, the display for the main rhythm continues to show the main rhythm setting, even though the rhythm you assigned to the NORMAL/FILL-IN button is the one that sounds.

Example: When 00 is set as the main rhythms and you assign 11 to the NORMAL/FILL-IN button.
In this case, pressing the NORMAL/FILL-IN button causes rhythm 11 to sound, but the rhythm display shows 00.

■ Using Magical Presets

Magical Presets let you configure the keyboard to perform a variety of special effects, such as playing a short accompaniment phrase when you press a keyboard key, and much more. There are a total of 50 Magical Presets in memory for instant recall when you need them.

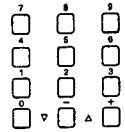
To change the Magical Preset

1. Look at the magical preset list printed on the keyboard's music stand and find the one you want.
   - Here we will assign Magical Preset 16, which is SERENADE.

2. Press the MAGICAL PRESET button, and the number that identifies the current Magical Preset appears on the display.

   - When you do the MAGICAL PRESET indicator lights.

3. Use the 10-key pad to input the number of the Magical Preset you want to change to.



   - You can also use the [+] and [–] buttons. Pressing [+] increases the displayed Magical Preset number by 1, while [–] decreases it.
   - Be sure to always specify a 2-digit number.

Note

- Pressing the LAYER and SPLIT button while a Magical Preset number is on the display (step 2 of the above operation) cancels the Magical Preset and displays the tone number.

The keyboard is now assigned the Magical Preset that you specified in the above procedure.

To switch Magical Preset off

Press the MAGICAL PRESET button to switch the function off.

- When you do the MAGICAL PRESET indicator goes out.

■ About Magical Presets

The following are detailed explanations of each type of Magical Preset.

Break Beat (00 to 17)

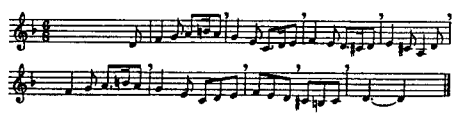
With Break Beat, pressing any of the keys in the range shown below, causes the selected Break Beat phrase to sound. Each phrase is four measures long, and it continues to sound as long as you keep the key depressed. The phrase is played in the key that corresponds to the keyboard key that you press (pressing C plays the phrase in C). Note that you can also control the tempo of the phrase using the TEMPO buttons.

Break Beat Application Examples

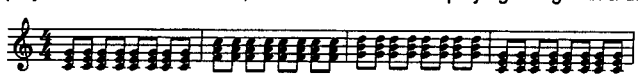
- Keep a Break Beat keyboard key depressed and play along with a melody for ad-lib practice with a single chord.
- Press a different Break Beat keyboard key at the point where a progression changes chords and play the chord using the accompaniment keyboard.
- Play a song's bass part on the Break Beat keyboard.

Melodycomp (18 to 25)

Melodycomp contains a variety of chord progressions which can be controlled by your phrasing of the melody. If you play a smooth (legato) melody line leaving no space between the notes, Melodycomp will play the first chord of the progression behind you. To advance to the next chord, simply lift your hand and start a new legato melody line.
When playing a song with a melody that corresponds to a Melodycomp chord progression, a full orchestra effect can be achieved by simply playing the melody.

Example : Greensleeves
Magical Preset Number : 19
Tone Number : 046

- In general, play in legato without completely removing your fingers from the keyboard.
- Momentarily release all keys where marked with ' in the score.
- If you want to stop and start again from the beginning, reset the Magical Preset and tone numbers.

Shadow Drum (26 to 29)

With Shadow Drum, pressing a keyboard key plays the percussion sound. As shown in the score below, if you play notes at fixed intervals, it creates the effect of playing along with a drummer.

Free Session (30 to 49)

Free Session gives you a selection of preset chord progressions (see page A-2 for a full list) that you can play along with. Free Session chord changes play automatically, independent of what you play on the keyboard. Use the following procedure to start a Free Session progression.

To start a Free Session progression

1. After selecting the Free Session progression you want to use (see "To change the Magical Preset" on page E-49), press a key on the Free Session accompaniment keyboard to define the key of the progression.

   - Pressing one of the keys in the above illustration starts auto-accompaniment play in the key that matches the key you press. You can then use any of the keyboard's keys to play Free Session chords. To select the key of C for example, press the C key.

2. You can also change the rhythm being used with a Free Session progression.

3. To stop play of the Free Session progression, press the START/STOP button.

   - Note that you can use ending patterns (see "Improvising with the preset patterns" on page E-30) with Free Session progressions.
   - Whenever you play a fill-in pattern during a performance using Free Session, play returns to the first chord of the selected chord progression.

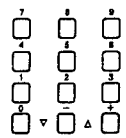
■ Using TONE button with Magical Presets

You can use the TONE button to change tones while you are using Magical Presets.

To change the tone

1. Press the MAGICAL PRESET button.

2. Use the 10-key pad to select the Magical Preset you want to use.



3. Press the TONE button.

4. Use the 10-key pad to input a tone number.

- When you press the TONE button, either the currently selected tone number, the currently selected Magical Preset number, or a number used by the keyboard for internal processing appears on the display. The type of number depends on the type of Magical Preset that you are using.

■ Using the Registration function

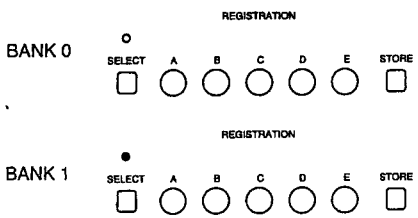
With the Registration function, you can save setups such as tone and rhythm selections, tempo settings, and effect selections for instant recall.
You can store a total of 10 set-ups: five (A through E) in BANK 0 (SELECT indicator not lit) and five (A through E) in BANK 1 (SELECT indicator lit).

To store a set-up

1. First of all, make the following settings and selections:

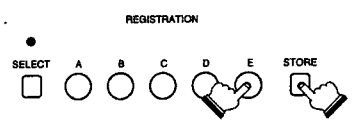
   - Tone number
   - Rhythm number
   - Tempo
   - Layer on/off
   - Pad number selection
   - Mixer
   - Auto-accompaniment settings
   - Digital effects
   - Split on/off
   - Split point
   - Rhythm numbers assigned to the four auto-accompaniment buttons (INTRO, NORMAL/FILL-IN, VAR/FILL-IN, SYNCHRO/ENDING)
   - Touch response
   - MIDI settings: send channel settings; local control on/off; bend sense; modulation depth; auto-accompaniment pattern send on/off; MIDI IN chord judgement on/off; bulk send/receive; assignable jack

2. Use the SELECT button to select BANK 0 (SELECT indicator not lit) or BANK 1 (SELECT indicator lit).

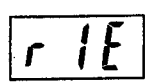


3. While holding down the STORE button, press the set-up button (A through E) where you want to store the set-up.

   Example: To store a set-up in BANK 1, set-up E



- The BANK number and set-up letter appear on the display for about five seconds.



Note

- The REGISTRATION button does not operate while the Magical Preset number is on the display and the SONG MEMORY button indicator is lit.

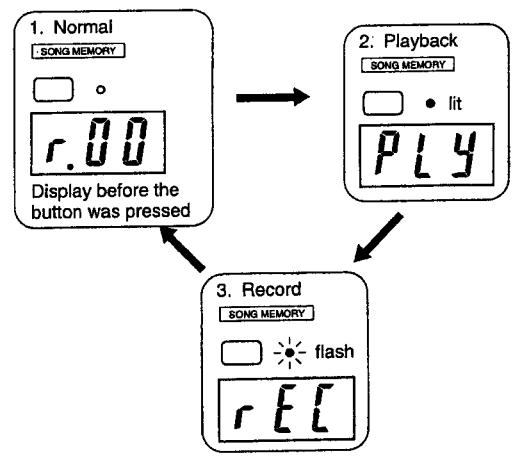
Part 4 Song Memory

The Song Memory lets you record up to two songs, with a total of approximately 5,200 notes in memory. You can then play it back and even play along with yourself on the keyboard. The following are some of the features that are available when using the Song Memory.

- You can adjust the tempo of the playback to practice at the speed you want.
- You can record over previous recordings up to six times (multi-track recording), and even use different tones for each recording.
- You can record auto-accompaniment parts and melody parts separately.

How Song Memory works

Each time you press the SONG MEMORY button, the status of the SONG MEMORY indicator changes in the sequence shown below. Press the SONG MEMORY button until its indicator shows the status you want.



Status Number	Name	Operation
1	Normal	Song Memory operations off
2	Playback	Playing back notes from Song Memory
3	Record	Recording notes to Song Memory

Important!

- Be sure to switch song memory operations off (by pressing the SONG MEMORY button until its indicator is off) after using the Song Memory. Some of the functions of this keyboard (For example; Magical Presets, Registration Memory recording and recall) are disabled while the Song Memory indicator is lit or flashing.

■ Recording to Song Memory

This section describes how to make an initial recording to Song Memory as you play on the keyboard. Use this operation to make a base recording, to which you can later add other tracks (page E-58).

Important!

- Any time you store something into Song Memory, anything that was previously there is automatically deleted and replaced with the new recording.
- Song Memory contents are retained in memory as long as power is supplied from batteries or an AC outlet. If power is cut off (by dead batteries and unplugging from an AC outlet), everything stored in Song Memory will be deleted.
- If the POWER indicator goes out while recording is in progress, anything recorded up to that point is deleted.

Song Memory capacity

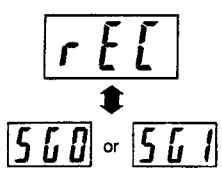
Song Memory can hold up to two songs, with a total of approximately 5,200 notes. You can record one song with 5,200 notes, or two songs with a total of up to 5,200 notes. Whenever the Song Memory has less than 100 notes of capacity remaining while you are recording, the SONG MEMORY indicator starts to flash quickly. If you are using auto-accompaniment, it stops when memory becomes full.

To record a base track (Track 1) to Song Memory

1. First, set up the keyboard to play the tune you want to record.
   - Switch power on.
   - The SONG MEMORY button is not operational while a Magical Preset number (page E-22) is displayed. If a Magical Preset number is displayed, press MAGICAL PRESET to switch the Magical Preset function off.
   - Select a rhythm.
   - Set the tempo.
   - Switch off the auto-accompaniment parts you don't want to use. Do this now, because you will not be able to switch parts on and off while recording is in progress.

2. Press the SONG MEMORY button twice.

   - The SONG MEMORY indicator starts to flash.
   - Each press of the SONG MEMORY button changes the status of the SONG MEMORY indicator between lit, flashing, and off. Make sure that the indicator is flashing and that [rEC] is shown on the display.
   - The display alternates between the message [rEC] (indicating that this is the Record Mode) and a value that indicates the currently selected song number (0 or 1).



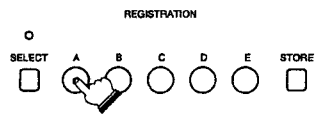
   - Note that pressing the SONG MEMORY button automatically cancels any Layer or Split settings (pages E-41 and E-42) if you were using these functions.

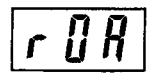
3. Use the 10-key pad to input 0 or 1 to specify the song number. You can think of song numbers as Side A and Side B of an audio cassette.

To recall a setup

1. Use the SELECT button to select Bank 0 (SELECT indicator not lit) or Bank 1 (SELECT indicator lit).
2. Press a set-up button (A through E) to recall its set-up.

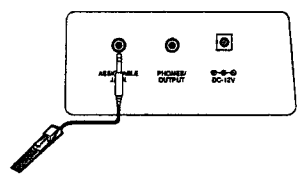
   Example: To recall the set-up in BANK 0, set-up A





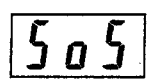
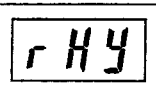
- The BANK number and set-up letter of the set-up you are calling appears on the display for about five seconds.
- Prior to storage of registration data, all 16 buttons of the Mixer are assigned the tone "000 PIANO" (except for the CH10=RHYTHM button). Because of this, all four auto-accompaniment parts are set to piano if registration memory contents are recalled without first storing any settings.

■ Assignable jack



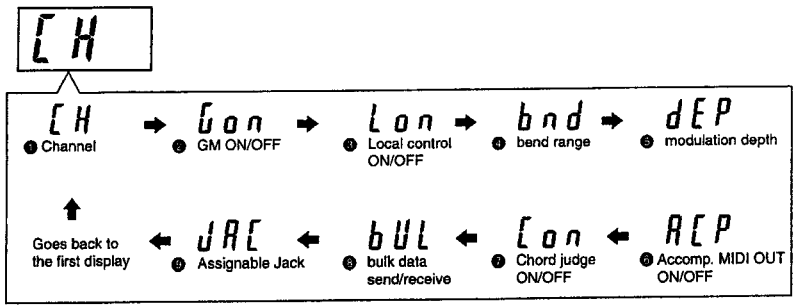
As the name suggests, this is an assignable jack to which you can assign a function. Specifically, you can assign pedal functions for an optionally available foot pedal (SP-2 or SP-10).

The following are the functions that can be assigned to the assignable jack.

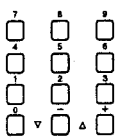
Function	Display Indicator	Description
Sustain		• With piano and other attenuating tones, the pedal works like a piano's damper pedal to cause notes to linger. • With organ and other sustaining tones, pressing the pedal causes the played note to be held.
Sostenuto		• This function works similarly to Sustain, but the timing of the effect is different from that used for Sustain. If the pedal is pressed after a note is played (and the keyboard key is still depressed), only that note is sustained.
Soft		• Softens notes played on the keyboard
Rhythm Start/Stop		• This function assigns the function of the START/STOP button to the pedal.

To change the assignable jack function

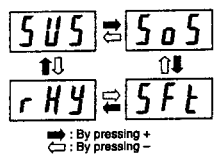
1. Press the MIDI button until JAC appears on the display.

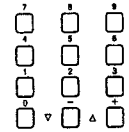


2. Use the 10-key pad's [+] and [–] buttons to change the displayed assignable jack function to the one you want to use.



- Each press of [+] and [–] changes the assignable jack function in the following sequence.
- Remember that you have five seconds after displaying the [JAC] message to input the number. Otherwise, the [JAC] message will disappear from the display, and you will have to press the MIDI button again to get it back.



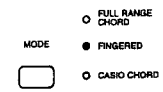


- You can also use the [+] and [–] buttons.
- Remember that you have five seconds after pressing the SONG MEMORY button to input the song number. Otherwise, the song number will disappear from the display, and you will have to press the SONG MEMORY button again to get it back.

4. Press TR1 to select track 1.

- The indicator of the TR1 starts to flash.

5. Use the MODE button to select CASIO CHORD, FINGERED or FULL RANGE CHORD.



6. Press the START/STOP button to start recording.

- If you want to use synchro start (page E-35), press the SYNCHRO/ENDING button instead of START/STOP here.
- If you want to use an intro with synchro start, press the SYNCHRO/ENDING button and then the INTRO button instead of START/STOP here.
- If you want to record without auto-accompaniment, set up the keyboard for normal mode and skip this step. If you do not press START/STOP here, recording starts automatically when you start playing the song in the next step.

7. Play the song that you want to record.
   - If you want auto-accompaniment play to start after you start keyboard play, set up the keyboard for synchro start in the preceding step, and start keyboard play using the melody keyboard (page E-32) only. When you want the auto-accompaniment to start, play on the accompaniment keyboard.
   - If you are using auto-accompaniment, both the melody and the auto-accompaniment pattern is recorded.

8. After the song is finished, press the START/STOP button to stop the recording operation.

- To end with an ending pattern, press the SYNCHRO/ENDING button (page E-31). The ending pattern will play and then recording and the rhythm pattern will stop automatically.
- After you finish a recording to the Song Memory, the Song Memory indicator is lit.
- You can play back the song you have just recorded by pressing the START/STOP button. See page E-62 for details on playing back from Song Memory.

About Song Memory data

In addition to the notes you play on the keyboard, the following data is also stored in Song Memory. These operations are also performed whenever you play back from Song Memory. Note that transpose, tuning, tempo changes you make during recording, effect type, split on/off and layer on/off, accompaniment volume setting are not reproduced during playback.

- Tone numbers
- Rhythm numbers
- Intros
- Endings
- Accompaniment patterns (NORMAL and VARIATION)
- Fill-ins (NORMAL and VARIATION)
- Chord progressions
- Pitch bender operations
- Modulation
- Optional pedal operations
- Pad operations
- Chord type (NORMAL, CASIO CHORD, FINGERED, FULL RANGE CHORD)
- Assignable jack settings
- Rhythm numbers assigned to the four auto-accompaniment buttons (INTRO, NORMAL/FILL-IN, VAR/FILL-IN, SYNCHRO/ENDING)
- Touch Response

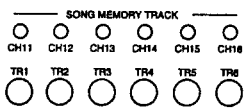
Important!
Transpose, Tuning, Tempo, and accompaniment volume setting are not stored into Song Memory.

How Mixer settings are store in memory

- Current PLY (playback enabled) settings are stored in memory when the record operation is started.
- Any changes in part tones made with the Mixer are not recorded in memory.

■ Multi-Track Recording

Song Memory gives you six tracks for recording, which means that once you record a basic track, you can add up to five more tracks while listening to what you have already recorded. Then when you play back the tracks, all of the parts you have recorded are played back as a single song.



What is a track?

A track is a recorded part. The Song Memory of this keyboard has a total of six tracks.

	Start	End
Track 1	Auto-accompaniment (Rhythm, bass, Chord 1, Chord 2, Chord 3), pad operations, melody	
Track 2	Keyboard play	
Track 3	Keyboard play	
Track 4	Keyboard play	
Track 5	Keyboard play	
Track 6	Keyboard play	

How tracks are organized

- As shown in the above illustration, track 1 is the basic track that contains the melody you play on the keyboard, as well as auto-accompaniment patterns and pad operations. With the other tracks, you can record parts you play on the keyboard only.
- Each track is independent of the others. This means that if you record over a track, only that track's contents are replaced with the new recording. If you make a mistake while recording a track, you need only to re-record that track.
- You can use different Mixer settings for each track (page E-60).

Ways to use multi-track recording

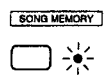
- If you have problems playing chords and melody at the same time, record the auto- accompaniment in Track 1, and then add the melody with another track. This frees both hands for melody play and pitch bender operations.
- You can record your own bass and chord patterns in Tracks 2 through 6 and then use them in place of the keyboard's built-in patterns. To do this, cancel the bass and chord parts of the auto-accompaniment and play back the tracks.

Important!
Remember that the total number of notes that can be played at the same time (polyphony) is 32. If your multi-track recording causes more than 32 notes to be played at the same time, the earliest notes sounded will be eliminated.

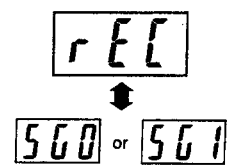
To perform a multi-track recording

1. First, set up the keyboard to play the tune you want to play.
   - Switch power on.
   - You will not be able to record to Song Memory while a Magical Preset number (page E-22) is displayed. If a Magical Preset number is displayed, press MAGICAL PRESET to switch the Magical Preset function off.
   - Set the tempo.
   - Select a tone.

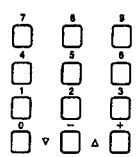
2. Press the SONG MEMORY button twice.



   - The SONG MEMORY indicator starts to flash.
   - Each press of the SONG MEMORY button changes the status of the SONG MEMORY indicator between lit, flashing, and off. Make sure that the indicator is flashing and that rEC is shown on he display.
   - The display alternates between the message rEC (indicating that this is the Record Mode) and a value that indicates the currently selected song number (0 or 1).

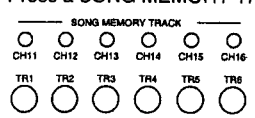


3. Use the 10-key pad to input 0 or 1 to specify the song number. Make sure that you correctly select the song that you want to use for multi-track recording.



   - You can also use the [+] and [–] buttons.
   - Remember that you have five seconds after pressing the SONG MEMORY button to input the song number. Otherwise, the song number will disappear from the display, and you will have to press the SONG MEMORY button again to get it back.

4. Press a SONG MEMORY TRACK button to select any track from 2 through 6.



   - The indicator of the SONG MEMORY TRACK button you press starts to flash.

5. Start recording.
   - Press START/STOP or play something on the keyboard.
   - When you start recording, any tracks already recorded start to play back.

6. Play the part that you want to record.

   In addition to what you play on the keyboard, the following data is also stored in Song Memory.

   - Pitch bender operations
   - Pedal (option) operations
   - Tone changes
   - Modulation operations

7. After the song is finished, press the START/STOP button to stop the recording operation.

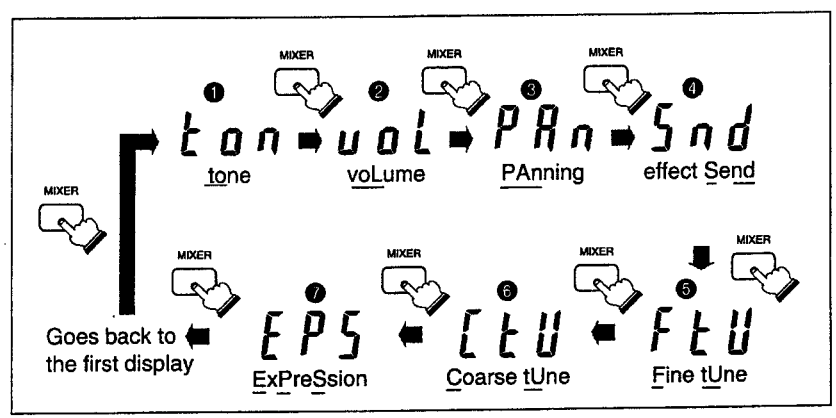
- Note that even if the auto-accompaniment pattern stops playing, the record operation continues until you press START/STOP.
- You can play back the song you have just recorded by pressing the START/STOP button. See page E-62 for details on playing back from Song Memory.
- If you want to re-record to the current track to another track, proceed from step 4.

■ Recording Mixer settings

You can record individual Mixer settings for volume, tone, panning, effect depth, tuning and expressions for each of the six Song Memory tracks.

General operation

Each time you press the MIXER button, the display changes in the sequence shown below. Display the value for the parameter you wish to change and then use the 10-key pad keys to change it.

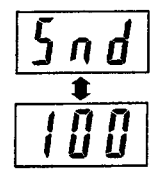


Message	Meaning	Setting Range
ton	Tone selection for each channel	000 to 127, dr 0 to dr 7.
uoL	Volume setting for each channel	000 (min) to 127 (max)
PAn	Stereo position (position between speakers where sound is hear)	000 (left side) to 127 (right side)
Snd	Effect depth	000 (min) to 127 (max)
FtU	Fine tuning of each channel	–50 to 50
CtU	Rough tuning of each channel	–12 to 12
EPS	Expression setting of each channel	000 to 127

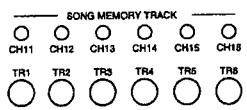
To change a Track Mixer parameter

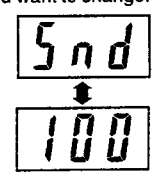
1. Press the MIXER button until the display for the parameter you want to change appears.

- The track that this change will be applied to is the one whose indicator is flashing.
- Here we will change the effect volume for the Track 5 part from 100 to 115, so press MIXER 4 times.
- The display alternates between the message Snd (indicating that this is the effect volume value) and a value that indicates the currently set effect volume value for one of the parts.



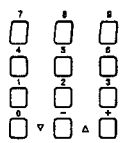
2. Press the SONG MEMORY TRACK button for the track whose Mixer settings you want to change.



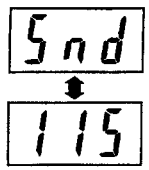


- The indicator above the SONG MEMORY TRACK button you press starts to flash, and the display alternates between the message Snd (indicating that this is the effect volume value) and a value that indicates the currently set effect volume value.

3. Use the 10-key pad to input the 3-digit number for the effect volume value you want to use. In this example, we will input a value of 115.



- You can also use the [+] and [–] buttons. Pressing [+] increases the displayed effect volume value by 1, while [–] decreases it.
- Remember that you have five seconds after pressing the MIXER button to input the first digit or press a part button. You also have five seconds after pressing a SONG MEMORY TRACK button to input the first digit. Otherwise, the value will disappear from the display, and you will have to press the MIXER button again to start again.



4. Repeat this procedure from step 2 for other tracks if you want.

Notes

- The above procedure is used to select the tones that are used when you start play in each track. Note that tone changes you make while recording are also recorded as part of the track's data.
- You can also perform the above operation for Song Memory playback.

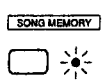
■ Playing back from Song Memory

Use the following procedure to play back songs recorded in Song Memory.

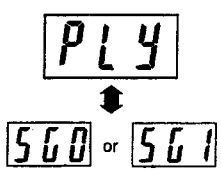
To play back a song from Song Memory

1. First, set up the keyboard
   - Switch power on.
   - You will not be able to playback a song from Song Memory while a Magical Preset number (page E-22) is displayed. If a Magical Preset number is displayed, press MAGICAL PRESET to switch the Magical Preset function off.
   - Set the tempo.
   - Switch off any auto-accompaniment parts that you don't need. Do this now, because you will not be able to switch parts off while playback is in progress.

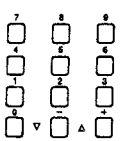
2. Press the SONG MEMORY button once.



- The SONG MEMORY indicator lights.
- Each press of the SONG MEMORY button changes the status of the SONG MEMORY indicator between lit, flashing, and off. Make sure that the indicator is lit and that [PLY] is shown on the display.
- The display alternates between the message [PLY] (indicating that this is the Playback Mode) and a value that indicates the currently selected song number (0 or 1).



3. Use the 10-key pad to input 0 or 1 to specify the song number.



- You can also use the [+] and [–] buttons.
- Remember that you have five seconds after pressing the SONG MEMORY button to input the song number. Otherwise, the song number will disappear from the display, and you will have to press the SONG MEMORY button again to get it back.

4. Press the START/STOP button to start playback.

- Each beat of the rhythm count is indicated by the START/STOP indicator.
- You can change the tempo and volume settings while playback is in progress.
- You can use the entire keyboard for play along with playback from the Song Memory.
- The indicators for each auto-accompaniment part flash whenever the corresponding parts are sounding.
- Playback stops automatically (and the START/STOP indicator stops flashing) when the end of the Song Bank piece is reached.
- You can manually stop playback from the Song Memory at any point by pressing the START/STOP button.

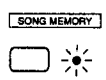
■ Deleting tracks from Song Memory

Use the following procedure to delete track from the Song Memory.

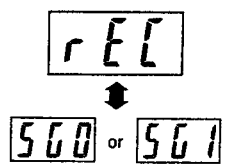
To delete a track from Song Memory

1. First, set up the keyboard.
   - Switch power on.
   - You will not be able to delete tracks from Song Memory while a Magical Preset number (page E-22) is displayed. If a Magical Preset number is displayed, press MAGICAL PRESET to switch the Magical Preset function off.

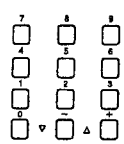
2. Press the SONG MEMORY button twice.



- The SONG MEMORY indicator starts to flash.
- Each press of the SONG MEMORY button changes the status of the SONG MEMORY indicator between lit, flashing, and off. Make sure that the indicator is flashing and that [rEC] is shown on the display.
- The display alternates between the message [rEC] (indicating that this is the Record Mode) and a value that indicates the currently selected song number (0 or 1).

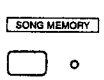


3. Use the 10-key pad to input 0 or 1 to specify the number of the song that contains the tracks you want to delete.

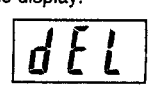


- You can also use the [+] and [–] buttons.
- Remember that you have five seconds after pressing the SONG MEMORY button to input the song number. Otherwise, the song number will disappear from the display, and you will have to press the SONG MEMORY button again to get it back.

4. Hold down the SONG MEMORY button until the message [dEL] appears on the display.

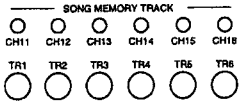


- At this time, the indicators above the SONG MEMORY TRACK buttons that contain recordings light.



Important!
The next step deletes the notes recorded in the track you specify. This operation cannot be undone. Make sure that you really want to delete a track before performing the next step.
To abort this operation at this point without deleting anything, press the SONG MEMORY button.

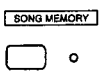
5. Hold down the SONG MEMORY TRACK button of the track that you want to delete.



6. Hold down the SONG MEMORY button.

- Remember that you have five seconds after holding down the SONG MEMORY button to specify a track number. Otherwise, the [dEL] message will disappear from the display, and you will have to perform the above procedure again to get it back.
- Repeat this procedure from step 4 to delete other tracks if you want.
- Note that there is no song delete function. To delete a song, you must delete each of its tracks, one-by-one.

7. Press the SONG MEMORY button to return to the normal mode.

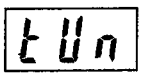


Part 5 Other Settings

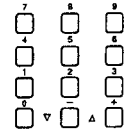
This part of the manual details other general settings.

■ To tune the keyboard

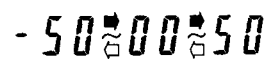
1. Press the TRANSPOSE/TUNE button until [tUn] appears on the display.



2. Use the 10-key pad to input 2-digit number between –50 and 50.



- Each press of the [+] and [–] buttons changes the setting in the following sequence.
- Remember that you have five seconds after displaying the current setting to tune the keyboard. Otherwise, the message will disappear from the display, and you will have to press the TRANSPOSE/TUNE button again to get it back.
- Pressing the [+] and [–] buttons at the same time automatically sets the tuning to 00.

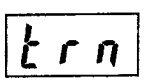


➡ : Each time you press +
⇦ : Each time you press –

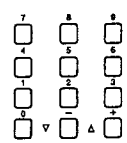
Notes
- You can tune the keyboard within the range of ±50 cents (101 levels). 100 cents is equivalent to one semitone.
- Switching power on or playing a demo tune automatically sets the keyboard tuning to 00.
- You can change the tuning of the keyboard when recording to or playing back from the Song Memory. Note however, that keyboard tuning data is not stored in Song Memory.
- The value you specify here replaces the Mixer and MIDI parameter fine tune setting for all channels, and outputs the setting through the MIDI OUT terminal.

■ To transpose the keyboard

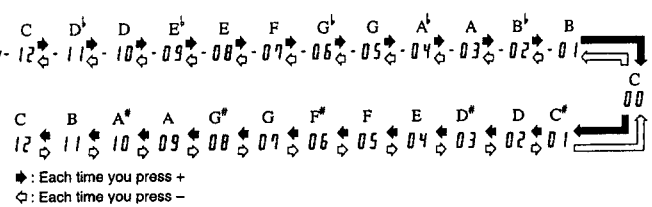
1. Press the TRANSPOSE/TUNE button until [trn] appears on the display.



2. Use the 10-key pad to input 2-digit number between –12 and 12.



- Each press of the [+] and [–] buttons changes the key of the keyboard in the following sequence.



➡ : Each time you press +
⇦ : Each time you press –

- You can also specify 0 through 12 by pressing the corresponding 10-key pad button.
- Pressing the [+] and [–] buttons at the same time automatically sets the key of C (0).
- Remember that you have five seconds after displaying the current setting to transpose the keyboard. Otherwise, the message will disappear from the display, and you will have to press the TRANSPOSE/TUNE button again to get it back.

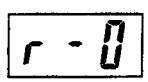
Important

- The above operation also causes pad sounds to be transposed.
- Each of the preset tones has a specific range in which it can sound (see the Note Table on pages A-3 and A-4). If a transpose operation causes a note to exceed its upper or lower range, the same note in the nearest upper or lower octave is used instead.
- The transpose setting returns to C(0) after play of a demo tune is finished.
- You can transpose the keyboard during Song Memory (page E-55) recording and playback, but the transpose settings are not stored in memory. If you want to play back from Song Memory at the same transpose setting that you recorded with, you have to make the same transpose setting before playing back.
- The transpose setting clears the Mixer and MIDI parameter coarse tune setting and changes it to the value set by all channel transpose.

■ To set the touch sensitivity

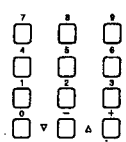
1. Press the TOUCH RESPONSE button.

- When you do, the current Touch Response sensitivity setting appears on the display.

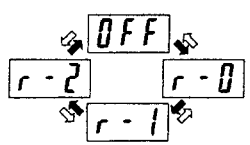


- r-0 : A strong sound is produced even when you press the keys lightly.
- r-1 : Standard sensitivity
- r-2 : A medium-level sound is produced when you press the keys strongly.
- OFF : Touch Response off.

2. Use the 10-key pad to input the 1-digit number that identifies the touch sensitivity you want to use.



- You can also use the [+] and [–] buttons. Each press of these buttons changes the setting in the following sequence.



➡: Each time you press +
⇦: Each time you press –

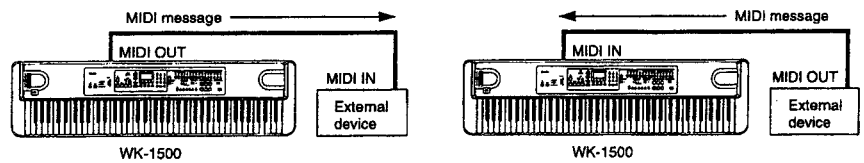
Part 6 Using MIDI

■ What is MIDI?

"MIDI" stands for Musical Instrument Digital Interface, which is a worldwide standard for the exchange of digital signals produced by electronic musical instruments and devices. MIDI lets you easily exchange data with other MIDI devices, regardless of maker or model. MIDI data includes information about whether a keyboard key is depressed or released, when a tone setting is changed, etc. Data is exchanged using what is known as "messages."
The WK-1500 can be used as a stand-alone keyboard without any knowledge of MIDI and how to exchange MIDI data. The following information is presented for those who wish to connect the WK-1500 to another keyboard, a computer, sequencer, or any other MIDI device to exchange data. Let's start out by looking at how MIDI works and its various messages.

MIDI Terminals

MIDI messages are sent from one device's MIDI OUT terminal to another device's MIDI IN terminal over a MIDI cable. A MIDI message from the WK-1500, for example, could be output through the WK-1500's MIDI OUT terminal to a connected external device's MIDI IN terminal over a MIDI cable. Of course, the connected device could send a message back from its out MIDI OUT terminal to the WK-1500's MIDI IN terminal over another MIDI cable.



MIDI Channels

MIDI channels, numbered 1 through 16, can be assigned specific parts of the MIDI data. You can think of them as being similar to the channels on your television. Just as your TV has to be tuned into Channel 3 to receive broadcasts on that channel, a receiving MIDI device must also be set to the channel that matches the data it is trying to receive. If it is set to receive Channel 3 MIDI data, for example, data on all other channels is ignored.
The WK-1500 can receive data over all 16 MIDI channels and can play up to 16 parts, each with its own individual tone and volume setting. This capability is called "multi-timbre".
On the receiving side, the WK-1500 can receive keyboard and pitch bend wheel operation data over any one of the 16 MIDI channels.

■ General MIDI

The General MIDI System Level 1 (popularly known as simply "General MIDI") defines more precise standardization levels for MIDI synthesizer modules. It defines the numbering of tones, the numbering of percussion sounds, MIDI channels that can be used, and sound source specifications. Any MIDI data that is created using a General MIDI sound source can be played on any other General MIDI device, regardless of manufacturer.
The sound source built into the WK-1500 conforms with General MIDI specifications, which means that any General MIDI data that you purchase, download with your computer, or create on a sequencer can be played on the WK-1500.
The following sections provide some detail about General MIDI specifications.

Number of Voices

General MIDI defines a minimum of 24-voice polyphony. The WK-1500 is capable of 32-voice polyphony, which is more than enough to comply with requirement.

MIDI Channels

General MIDI requires the ability to receive simultaneously over all 16 MIDI channels. Channel 10 is reserved as a percussion-only channel.

Number of Tones

General MIDI recommends tone assignments for 128 tone numbers, including 47 percussion sounds for percussion-only Channel 10. The tones and percussion sounds of the WK-1500 conform with these recommendations.

Receivable MIDI Messages

General MIDI System Level 1 recommends the following MIDI messages for receipt.

- NOTE ON/OFF
- PROGRAM CHANGE
- ALL NOTES OFF
- ALL SOUND OFF
- PITCH BEND
- VOLUME
- PAN
- EXPRESSION
- HOLD 1 (SUSTAIN PEDAL)
- MODULATION DEPTH
- PITCH BEND SENSE
- FINE TUNE (TUNE)
- COARSE TUNE (TRANSPOSE)
- RESET ALL CONTROLLERS
- RPN NULL
- ACTIVE SENSING
- CHANNEL PRESSURE
- UNIVERSAL SYSTEM EXCLUSIVE (GM SYSTEM ON/GM SYSTEM OFF*)

**** The WK-1500 does not support GM SYSTEM OFF.***

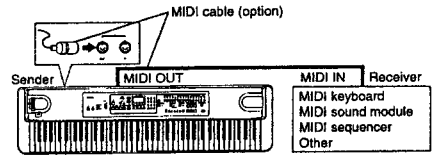
Built-in Digital Effects

General MIDI System Level 1 does not define built-in effect specifications. Whenever you lay back sequencer data on the WK-1500 that was produced using another type of General MIDI sound source, the type and depth of the effect may not be what it is on the original device where the data was created. When this happens, you can generally correct the situation by making necessary adjustments to the settings of the WK-1500.

■ MIDI Operations

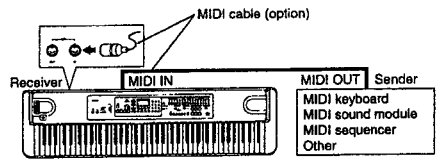
Sending Data from the WK-1500

- Pressing WK-1500 keyboard keys plays the corresponding notes on the connected device, producing a richer sound or a combination of sounds.
- Connecting to a sound module*1 makes it possible to increase the number of tones that can be played from the WK-1500's standard 128 tones.
- You can record output on a commercially available MIDI sequencer*2.
- Specific parts of WK-1500 rhythms and accompaniment patterns can be sent over different channels.



Sending Data to the WK-1500

- Playing notes on a connected MIDI keyboard causes the corresponding notes to be sounded by the WK-1500.
- When auto-accompaniment is turned on, the WK-1500 automatically plays accompaniment patterns in accordance with incoming notes.
- The WK-1500 can playback notes from a connected MIDI sequencer*2. Receipt of multiple parts*3 causes the WK-1500 to simultaneously play all parts.



If you are planning two-way communication between two units, it is a good idea to use two MIDI cables.

*1 Basically an electronic musical instrument without a keyboard, which is controlled by an external device.
*2 External sound data memory. Using a MIDI sequencer that has removable storage media lets you build an entire library of MIDI data.
*3 The following are channel assignments when receiving data.
Channels 1 to 4: keyboard tones (see pages E-41 and E-42 for details on split and layer data)
Channel 5: pads
Channels 6 to 10: auto-accompaniment parts

WK-1500 Send/Receive MIDI Messages

There are many different types of MIDI messages, and this section describes the MIDI messages that can be sent and received by the WK-1500. Note that messages in this section marked with an asterisk affect overall WK-1500 operation. Messages without asterisks affect particular MIDI channels.

NOTE ON/OFF
This message is used to send information about whether a keyboard key is depressed (on) or released (off). It includes the following information.

- Note number: keyboard note identifier
- Velocity: key pressure as a value from 1 to 127

Note that the WK-1500 dos not receive velocity information. Whenever a key on the WK-1500's is pressed or released, the corresponding NOTE ON/OFF message is output through the MIDI OUT terminal.

Notes

- Velocity originally expressed the speed at of a key press, but now stands for the amount of pressure applied to a key. It can be any one of the 127 values in the range from 1 to 127, with a center value off 64 normally being processed as mezzo forte.
- Each of the preset tones has a specific range in which it can sound (see "Note Table" on pages A-3 and A-4). If a note number received exceeds its upper or lower range, the same note in the nearest upper or lower octave is used instead.

PROGRAM CHANGE
This message indicates tone selection as a value in the range of 0 to 127. Whenever you select a tone on the WK-1500, the corresponding data is sent out as a PROGRAM CHANGE message through the MIDI OUT terminal. PROGRAM CHANGE data can also be used to change the WK-1500's tone setting from an external device.

PITCH BEND
This message controls upward and downward bending of the pitch of a note. Rotating the WK-1500's pitch bend wheel causes corresponding data to be sent out as a PITCH BEND message through the MIDI OUT terminal.

CONTROL CHANGE
This message is used to add vibrato or to change the volume of a tone. The CONTROL CHANGE message includes the following information.

- CONTROL NUMBER: effect identifier
- CONTROL VALUE: effect depth, on/off setting

The WK-1500 can send and receive the following CONTROL CHANGE data.

CONTROL CHANGE Data	Control Number
MODULATION	1
VOLUME	7
PAN	10
EXPRESSION	11
HOLD 1	64
SOSTENUTO	66
SOFT PEDAL	67
EFFECT DEPTH	91
RPN*	100/101
DATA ENTRY	6/38

* *"RPN" stands for "registered parameter number," which is a combination of multiple CONTROL CHANGE settings. Control values 100 and 101 select the elements being controlled, and values are set by DATA ENTRY control values (CONTROL CHANGE 6/38).*
The WK-1500 uses RPN to control PITCH BEND SENSE, TRANSPOSE, and TUNE.

Note

- Use of an optionally available pedal makes it possible to send and receive SUSTAIN, SOSTENUTO, and SOFT effects (CONTROL NUMBERS 64, 66, 67).

ALL SOUND OFF
This message kills all sound currently being produced by the applicable channel.

ALL NOTES OFF
This message turns all notes currently being produced by the applicable channel off.

* *Notes being sustained by the SUSTAIN or SOSTENUTO pedal continue to sound until the pedal operation goes off.*

RESET ALL CONTROLLERS
This message initializes the settings of pitch bend and all controllers.

SYSTEM EXCLUSIVE(*)
This message provides a means to made detailed tone settings and control functions that are specific to a particular device.
The WK-1500 supports the following SYSTEM EXCLUSIVE settings.

- **GM SYSTEM ON ([FO][7E][7F][09][01][F7])**
  This SYSTEM EXCLUSIVE returns the WK-1500 to its General MIDI basic settings.
  * *GM SYSTEM ON takes more time to process than other messages. Whenever you record a GM SYSTEM ON message in sequencer data, always provide an interval of at least 50msec (50/1000 second) before the next message.*
- **GENERAL MIDI SYSTEM OFF ([FO][7E][7F][09][02][F7])**
  Receipt of any of the above messages disables the WK-1500's General MIDI System.
- **EFFECT CHANGE ([FO][44][0B][09][XX][F7])**
  This SYSTEM EXCLUSIVE switches the built-in digital effect type. A hexadecimal effect number that identifies the digital effect being changed to is input in place of the "xx" in the above SYSTEM EXCLUSIVE message, and then the message is sent from the sequencer (computer) to the WK-1500. The table below shows the hexadecimal numbers that identify each of the digital effects.

Number	Digital Effect	Hexadecimal Value
0	REVERB 1	00
1	REVERB 2	01
2	REVERB 3	02
3	CHORUS	03
4	TREMOLO	04
5	PHASE SHIFTER	05
6	ORGAN SPEAKER	06
7	ENHANCER	07
8	FLANGER	08
9	EQ LOUDNESS	09
OFF	OFF	0F

Example: The following changes to REVERB 2.
[F0][44][0B][09][01][F7]

Receive Only MIDI Messages

The following MIDI messages only can be received by the WK-1500. Note that messages in this section marked with an asterisk affect overall WK-1500 operation. Messages without asterisks affect particular MIDI channels.

CHANNEL PRESSURE
This message is output when additional pressure is applied to keyboard keys after they are already depressed. With the WK-1500, CHANNEL PRESSURE and MODULATION are the same, and receipt of either messages causes vibrato to be applied. Vibrato is turned off when either CHANNEL PRESSURE or MODULATION is turned off.

RPN NULL
This message initializes any parameter being controlled by RPN.

ACTIVE SENSING*
This message checks for disconnection of the MIDI cable. This message is sent at regular intervals whenever there are no other messages being sent by the sending device. The WK-1500 forces termination of all tonal output if no message is received within 420msec after this message is received.

Song Memory Contents and Demo Tunes

- Song Memory playback tracks can be sent over Channels 11 through 16.
- Demo tune contents cannot be sent as MIDI data.
- Received MIDI data cannot be recorded in the WK-1500's Song Memory.

Touch Response

- When touch response is turned off while the WK-1500 is the sending unit, data is sent without keyboard touch data.
- When touch response is turned off while the WK-1500 is the receiving unit, notes are played using keyboard touch data.

Stereo Position and Effect Depth

- These settings are made in accordance with MIDI data received from an external source.
- The maximum effect depth setting is fixed when Effect 07 (ENHANCER) or 09 (LOUDNESS) is on, and any specification received from an external source is ignored.

Musical Pads

Tones assigned to each pad along with their tone numbers are sent as MIDI data.

MIDI Implementation Chart

A MIDI Implementation Chart can be found at the back of the owner's manuals of all MIDI devices, including the WK-1500. You can find everything you generally need to know about how any MIDI device handles data by looking at its Implementation Chart.

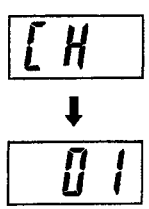
■ MIDI Channel Operations

Specifying the Basic Channel

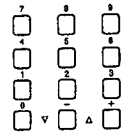
The following procedure describes how to specify which MIDI channel will be used for sending keyboard data, pitch bend wheel data, modulation switch data, etc.

1. Press the MIDI button once.

- This causes the CH indicator along with the currently selected basic channel number to appear on the display.



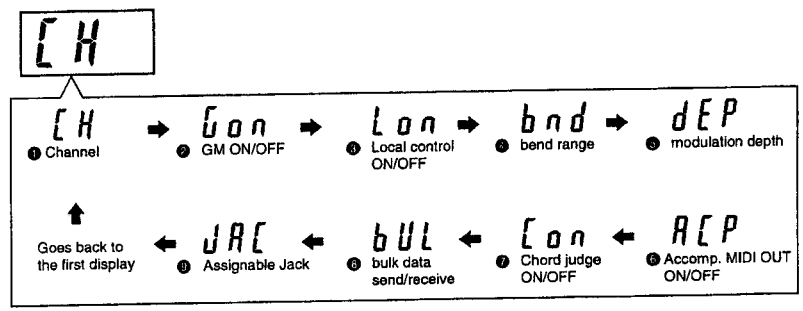
2. Use the 10-key pad to change the channel number.



- You can input a number or use the [+] and [–] buttons to increase or decrease the displayed number.
- Make sure to always input two digits. To specify Channel 2, for example, input "02".

Notes

- Each press of the MIDI button changes the displayed parameter as shown below. If you go past the CH display, keep pressing MIDI until you cycle back to it.



- The display automatically returns to the tone number if you do no perform any operation for about five seconds after pressing the MIDI button.

- **MIDI channel assignments of other send data**

MIDI Channel	1	2	3	4	5	6	7	8
Application	Real-time play				Pads	Auto-accompaniment		
Normal	Keyboard				Pad	Chord 1	Chord 2	Chord 3
Layer	Base tone	Layered tone			Pad	Chord 1	Chord 2	Chord 3
Split	High range		Low range		Pad	Chord 1	Chord 2	Chord 3
Layer + Split	High range base tone	High range layered tone	Low range base tone	Low range layered tone	Pad	Chord 1	Chord 2	Chord 3

└ The previous basic channel setting procedure can be used to send this data over another channel.

MIDI Channel	9	10	11	12	13	14	15	16
Application	Auto-accompaniment		Song Memory playback					
Normal	Bass	Rhythm	Track 1	Track 2	Track 3	Track 4	Track 5	Track 6
Layer	Bass	Rhythm	Track 1	Track 2	Track 3	Track 4	Track 5	Track 6
Split	Bass	Rhythm	Track 1	Track 2	Track 3	Track 4	Track 5	Track 6
Layer + Split	Bass	Rhythm	Track 1	Track 2	Track 3	Track 4	Track 5	Track 6

Important!

- Assigning the same channel to send keyboard note data and some other data causes both types of data to be sent over the channel at the same time.

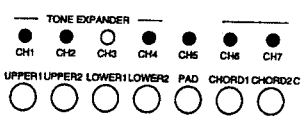
Example:
Assigning keyboard note data to channel 10 and then playing with auto-accompaniment causes keyboard on/off data and rhythm part on/off data both to be sent over channel 10. Under General MIDI specifications, channel 10 is defined as a percussion-only channel, so sending this data as-is to a General MIDI sound source results in the percussion sounds not being played at all. Instead, a rhythm repeat pattern is added and percussion sounds are played when the keyboard keys are pressed.

Turning a Specific MIDI Channel On and Off

When using the WK-1500 to play data from a connected sequencer or computer, you can turn specific MIDI channels off. This comes in handy, for example, when you want to turn off the melody part of the data and play along on the keyboard.

To turn a MIDI channel on and off

1. Press the channel button that corresponds to the channel you want to turn off.
   - Example: To turn off Channel 3
   - The button's indicator goes out to indicate that the channel is turned off (muted).



2. Repeat step 1 if you want to turn off other channels.
3. To turn a channel back on, press its channel button again.
   - The button's indicator lights to indicate that the channel is turned on (unmuted).

Notes

- When Channel 1 is turned off, the keyboard does not produce any sound even if Local Control is on.
- The channel on/off settings you make remain in effect as long as power is supplied to the WK-1500 by batteries or the AC adaptor, even when you turn power off.

MIDI Monitor

When an external MIDI device is connected, input of MIDI data to the WK-1500 causes the indicator of the applicable channel to light. The indicator is not lit if there is no data being input. This means you can see when MIDI data is being send from a sequencer because the indicators flash.

- Note that the channel indicators light and flash whenever WK-1500 internal data causes sound (keyboard, pad, accompaniment, demo, song) to generated.

■ Changing MIDI Settings

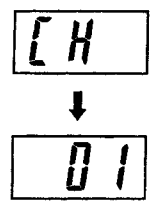
Selecting Parameters

The WK-1500 allows individual control over volume and pan parameters for each MIDI channel. The procedure you should use to set these parameters depends on whether or not the WK-1500 is sending MIDI data to or receiving data from a connected device.

To select system control parameters using the MIDI button

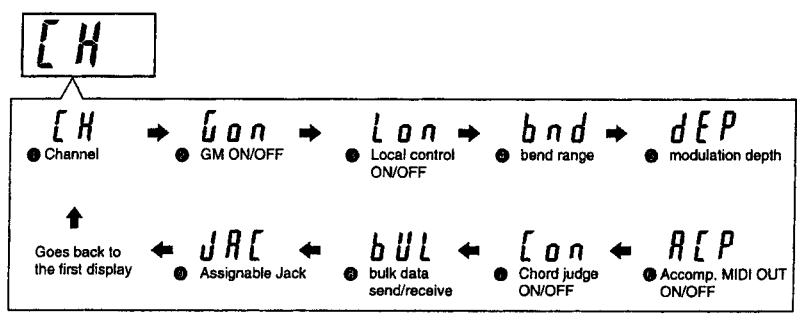
1. Press the MIDI button.

- This causes the CH indicator along with the currently selected basic channel number to appear on the display.



2. Use the MIDI button to select the parameter you want to change.

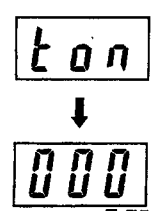
- Each press of the MIDI button changes the displayed parameter as shown below.



To select tonal parameters using the MIXER button

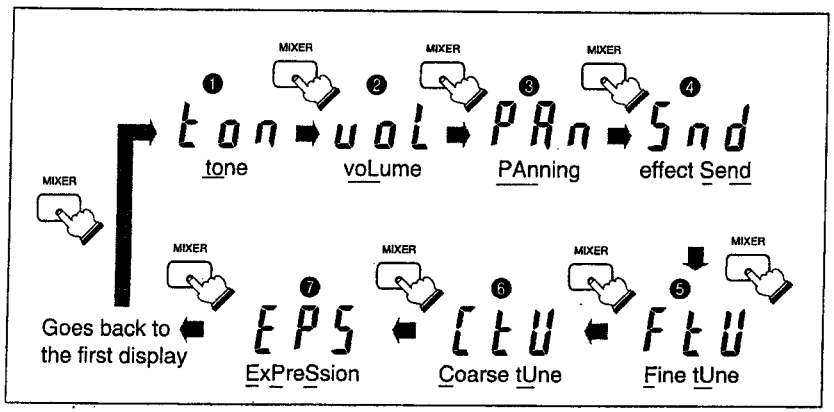
1. Press the MIXER button.

- This causes the currently selected tone number to appear on the display.



2. Use the MIXER button to select the parameter you want to change.

- Each press of the MIXER button changes the displayed parameter as shown below.



Notes

- The method you should use to change a parameter after you select it with the above procedures depends on the parameter. See the following section for details on how to change each parameter setting.
- The display changes back to what it was showing before you press the MIXER button if you do not perform any operation for about five seconds after selecting a parameter.

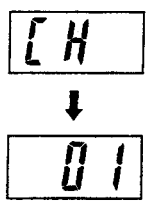
Changing Parameter Settings

1. Basic Channel

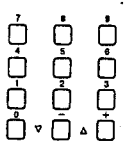
1. Press the MIDI button until the message [CH] appears on the display.

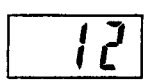
MIDI

- The [CH] indicator will soon start to alternate on the display with the currently selected basic channel number.



2. Use the 10-key pad to change the channel number.





2. General MIDI On/Off

Mixer function settings switch in the range from channel 1 to channel 16. As explained on pages E-37, 40, 47, and 60, this is because MIDI channels 1 through 16 are commonly used for layer/split, auto accompaniment parts, and mixer settings.

General MIDI On: Initial values in accordance with General MIDI specifications: Tone number = 000 (except for channel 10); Volume = 100

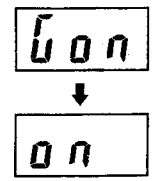
General MIDI Off:

- Channels 2, 3 and 4 are initialized to suite layer and split.
- Channels 6, 7, 8, 9 and 10 tones and panning settings match those for the rhythm number selected at that time.

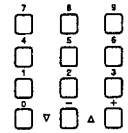
1. Press the MIDI button until the message [Gon] appears on the display.

MIDI

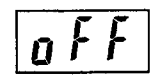
- The [Gon] indicator will soon start to alternate on the display with the current General MIDI on/off setting.



2. Use the 10-key's [+] and [–] buttons to turn General MIDI on and off.

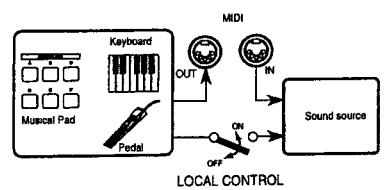


OFF ... WK-1500 octave settings
Gon ... General MIDI octave settings



3. Local Control On/Off

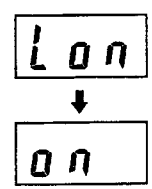
Turning Local Control off causes keyboard, pedal, and pad operation data to be output through MIDI OUT, without being sent to the WK-1500's sound source. This means that no sound is produced by the WK-1500.



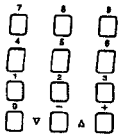
1. Press the MIDI button until the message [Lon] appears on the display.

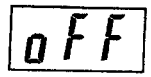
MIDI

- The [Lon] indicator will soon start to alternate on the display with the current Local Control on/off setting.



2. Use the 10-key's [+] and [–] buttons to turn Local control on and off.

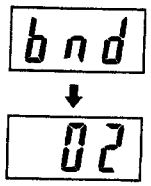




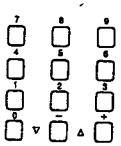
4. Bend Range
This setting determines how much the pitch of a note changes when the pitch bend wheel is rotated.

1. Press the MIDI button until the message [bnd] appears on the display.

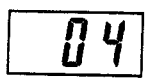
- The [bnd] indicator will soon start to alternate on the display with the current pitch bend range setting.



2. Use the 10-key pad to change the setting.



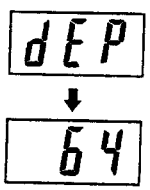
- Input a two-digit value within the range of 00 (no pitch bend) to 12 (±12 semitones).



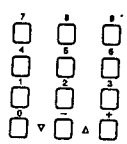
5. Modulation Depth
This setting sets the depth of vibrato.

1. Press the MIDI button until the message [dEP] appears on the display.

- The [dEP] indicator will soon start to alternate on the display with the current modulation depth setting.



2. Use the 10-key pad to change the setting.

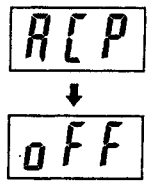


- Input a three-digit value within the range of 001 to 127.

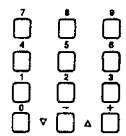
6. Accompaniment Data Output On/Off
When this setting is turned on, WK-1500 accompaniment pattern data is output through MIDI OUT.

1. Press the MIDI button until the message [ACP] appears on the display.

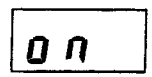
- The [ACP] indicator will soon start to alternate on the display with the current accompaniment data output on/off setting.



2. Use the 10-key's [+] and [–] buttons to turn accompaniment data output on and off.



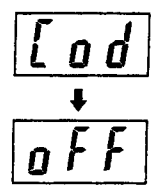
ON ... data sent
OFF ... data not sent



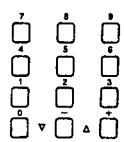
7. Chord Check On/Off
This setting determines whether or not the WK-1500 should sense the chord in basic channel data being received through MIDI IN.

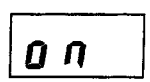
1. Press the MIDI button until the message [Cod] appears on the display.

- The [Cod] indicator will soon start to alternate on the display with the current chord sensing on/off setting.



2. Use the 10-key's [+] and [–] buttons to turn chord sensing on and off.





- **Chord Check Off (oFF)**
When data is receive over channels 1 through 16, each channel data is played in accordance with received data.

- **Chord Check On (on)**
Basic channel data
- In the CASIO CHORD/FINGERED mode, receive data E1 through F3 is judged in accordance with the CASIO CHORD/FINGERED judgement method
- In the FULL RANGE CHORD mode, receive data E1 through G9 is judged in accordance with the FULL RANGE CHORD judgement method

Non-basic channel data
When non-basic channel play data is sent, each channel data is played in accordance with received data.

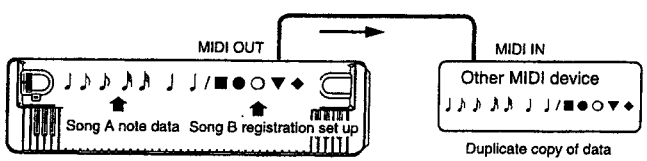
8. Bulk Exchange of Internal Data

The WK-1500 stores a variety of different types of internal data, including Song Memory and Registration Memory contents. Such data can be sent as MIDI exclusive data, which is manufacturer-specific or keyboard-specific MIDI data.
Internal memory is always sent in bulk, which means that you cannot specify which data items you want to send. The following is a complete list of internal data that is sent by the bulk exchange operation.

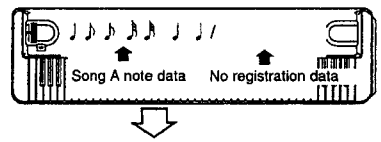
- Tone, rhythm, Magical Presets, and pad numbers
- Layer and Split on/off
- Tone Expander settings
- Effect types
- Touch response setting
- MODE button setting
- Registration memory contents
- Song memory contents
- Rhythm numbers assigned to the four auto-accompaniment buttons (INTRO, NORMAL/FILL-IN, VAR/FILL-IN, SYNCHRO/ENDING)
- Track mixer settings
- Assignable jack, tempo, and accompaniment volume settings
- Keyboard play MIDI send channel
- General MIDI on/off
- Bend range
- MIDI channel tones
- Auto accompaniment pattern output on/off

This data can be sent from the WK-1500 to an external MIDI device (sequencer, data filer, personal computer) for long-term storage. Data can then be downloaded back to the WK-1500 for instant set up when needed.

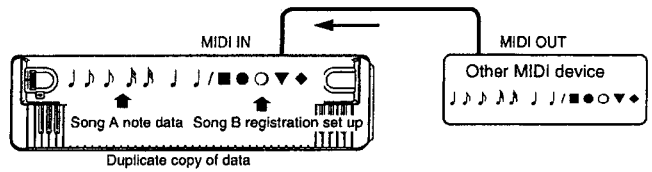
Data Save



Before Data Load



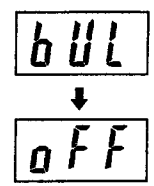
After Data Load



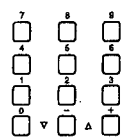
To bulk send internal data

1. Set up the other MIDI device to receive data.
   - Consult with the documentation that comes with the MIDI device you are sending data to for details on how to set it up to receive data.
2. On the WK-1500, press the MIDI button until the message [bUL] appears on the display.

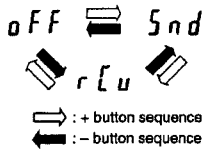
   - The [bUL] indicator will soon start to alternate on the display with the current bulk send setting.

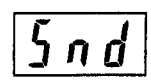


3. Use the 10-key's [+] and [–] buttons to display [Snd].



Snd ... send
rCu ... receive
oFF ... bulk data exchange off





4. Press the MIDI button to start the bulk send operation.

   - After the bulk send operation is complete, the display automatically returns to the status before you press MIDI button.

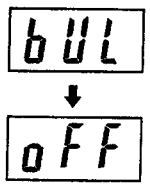
To bulk receive internal data

Important!

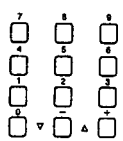
- *Note that bulk receiving data automatically deletes all data currently in the memory and replaces it with the received data. If a problem occurs while data is being received, current settings are deleted and the WK-1500 is initialized.*
- Make sure you do not need the data currently in the memory or save the current settings to an external MIDI device before performing this procedure.

1. On the WK-1500, press the MIDI button until the message [bUL] appears on the display.

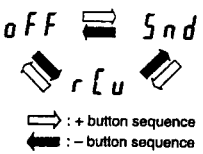
- The [bUL] indicator will soon start to alternate on the display with the current bulk send setting.

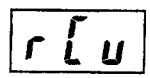


2. Use the 10-key's [+] and [–] buttons to display [rCu].



Snd ... send
rCu ... receive
oFF ... bulk data exchange off





3. Press the MIDI button to start the bulk receive operation.

4. Start the bulk send operation on the other MIDI device.
   - Consult with the documentation that comes with the MIDI device you are sending data to for details on how to bulk send data.
   - After the bulk receive operation is complete, the WK-1500's display automatically returns to the tone number if you do not perform any operation for about five seconds during the above operations.

Note

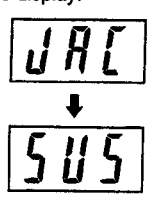
- For both the send and receive operation, the WK-1500 display automatically returns to the tone number if you do not perform any operation for about five seconds during the above operations.

9. ASSIGNABLE JACK

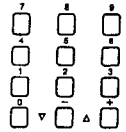
The following procedure assigns a function to the assignable jack located on the back of the WK-1500.

1. On the WK-1500, press the MIDI button until the message [JAC] appears on the display.

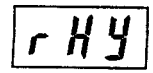
- The [JAC] indicator will soon start to alternate on the display with the current assignable jack setting.



2. Use the 10-key's [+] and [–] buttons to display the indicator for the function you want.



SUS ... sustain pedal
SoS ... sostenuto pedal
SFt ... soft pedal
rHy ... START/STOP button



See page E-54 for detail on the assignable jack.

MIDI channel parameter setting

You can use the MIXER function to set the tone, volume, panning, effect depth, tuning, and expression of each channel. To make these settings, use the same procedures that you use with the MIXER (Tone Expander) on page E-40 and the MIXER (Accomp Mixer) on page E-36.

1. TONE

This parameter sets a tone for each MIDI channel.

Note

- The WK-1500 allows setting of a value from 0 to 7 for channel 10, which is in accordance with the General MIDI specification of channel 10 as a percussion-only channel. Note, however, that the WK-1500 can receive values other than 0 to 7 over channel 10. Received values are converted as shown in the following table.

Channel 10 receive data conversion

Received Tone Number	Drum Set	Drum Set Name
000, 008~015	dr.0	dr.0 : STANDARD SET
001, 016~026	dr.1	dr.1 : ROOM SET
002, 024	dr.2	dr.2 : GATE SET
003, 025~031	dr.3	dr.3 : ELECTRONIC SET
004, 032~039	dr.4	dr.4 : SYNTH SET
005, 040~047	dr.5	dr.5 : BRUSH SET
006, 048~055	dr.6	dr.6 : STANDARD SET 2
007, 056~127	dr.7	dr.7 : VOICE SET

You can use any of the eight drum sets numbered 0 to 7 that are built into this keyboard for demo tune and rhythm pattern play.

2. VOLUME

This parameter sets the volume of each MIDI channel.

3. PAN

This parameter sets the pan (stereo left/right position during playback) of each MIDI channel.

4. EFFECT SEND

This parameter sets the depth of the effect (REVERB, CHORUS, etc.) of each MIDI channel.

Note

- The optimum effect depth setting depends on the type of effect being used. Try out a number of different settings using different effects to get an idea of how settings influence effects.

5. FINE TUNE
This parameter sets the fine tuning (detune) of each MIDI channel. Normally, the COARSE TUNE is made first and then refined with FINE TUNE.

Notes
- When you are using the same tone on two different channels, slightly detuning one of the channels gives the tone more depth. The actual result obtained depends on the tones you are using, so try a number of setting to find the result you want.
- Using the TRANSPOSE/TUNE button to change the tuning replaces the settings made with this parameter.

6. COARSE TUNE
This parameter tunes each MIDI channel.

7. EXPRESSION
This parameter sets the expression of each MIDI channel.

Note
- VOLUME and EXPRESSION are basically the same setting. Normally, VOLUME is used to adjust the overall volume of all channels, while EXPRESSION is used to change the intonation within a song.

MIDI channel assignments during data receive

MIDI Channel	1	2	3	4	5	6	7	8
Application						Auto-accompaniment		
Normal						Chord 1	Chord 2	Chord 3
Layer	Base tone	Layered tone				Chord 1	Chord 2	Chord 3
Split	High end		Low end			Chord 1	Chord 2	Chord 3
Layer + Split	High end base tone	High end layered tone	Low end base tone	Low end layered tone		Chord 1	Chord 2	Chord 3

MIDI Channel	1	2	3	4	5	6	7	8
Application	Auto-accompaniment							
Normal	Bass	Rhythm						
Layer	Bass	Rhythm						
Split	Bass	Rhythm						
Layer + Split	Bass	Rhythm						

Note
- MIDI Channels 1 through 3 are used when Magical Preset is being used.

Part 7 Technical Reference

Troubleshooting

Problem	Probable Cause	Solution
No sound when keyboard keys are pressed.	1. Power supply problem	1. Make sure the AC adaptor is connected, or that batteries are not dead and are loaded correctly (with + and - ends facing in the right directions).
	2. VOLUME is set to MIN.	2. Slide the VOLUME controller towards MAX.
	3. Headphones are connected.	3. Disconnect the headphones from the keyboard.
	4. Attempt to play notes on accompaniment keyboard while the CASIO CHORD or FINGERED mode indicator is lit.	4. Use the MODE button to turn off the mode indicators.
	5. A drum set (dr.0 to dr.7) is selected.	5. Any of these settings disable the 16 keyboard keys on the far left and the seven keyboard keys on the far right.
	6. The LOCAL CONTROL parameter is off.	6. Turn the LOCAL CONTROL parameter on.
	7. Mixer channel 1 is off.	7. Press the button so the indicator lights.
	8. Mixer channel 1 volume is set to 000.	8. Increase channel 1 volume.
No rhythm sound	1. Accompaniment volume is set to 000.	1. Use the ACCOMP VOLUME button to adjust the accompaniment volume.
	2. The rhythm part is cancelled.	2. Turn the rhythm part on.
	3. The Accompaniment Mixer rhythm volume is set to 0.	3. Adjust the rhythm volume.
No auto-accompaniment sound	1. Accompaniment volume is set to 000.	1. Use the ACCOMP VOLUME button to adjust the accompaniment volume.
	2. The accompaniment part is cancelled.	2. Turn the part on.
	3. The Accompaniment Mixer volume for the part is set to 0.	3. Adjust the part's volume.
• Layer and split indicators are lit, but no sound is produced. • No pad sound output.	1. Mixer buttons CH1 through CH4 are turned off (indicators are not lit). 2. Volume is set to "000".	1. Press Mixer buttons CH1 through CH4 to turn their indicators on. 2. Use the Mixer to increase volume.
One of the following symptoms when using batteries	Low battery power	Replace batteries with new ones

① Dim POWER indicator
② Low volume
③ Sound distortion
④ Interruption of sound at high volumes
⑤ Sudden power outage at high volumes
⑥ Spontaneous sound output when keyboard keys are not pressed
⑦ Tone output different from selected tone
⑧ Abnormal sound during rhythm or demo tune play

Distorted rhythms, auto-accompaniment, or bass tones (032 through 039)	Volume setting is too high and effect E-9 (LOUDNESS) is being used.	• Lower the volume setting. • Change the effect.
Layer or Split does not function	Mixer (Tone Expander) is off.	Press the corresponding Mixer channel button so the indicator lights.
No musical pad sound	Mixer channel 5 volume is set to 000.	Increase channel 5 volume.

Specifications

Model: CASIO WK-1500
Keyboard: 76-key, 6-1/4-octave standard size keyboard with touch response (three sensitivity levels and OFF setting)
Polyphony: 32 notes maximum
Digital Effects: 10
REVERB 1, REVERB 2, REVERB 3, CHORUS, TREMOLO, PHASE SHIFTER, ORGAN SPEAKER, ENHANCER, FLANGER, LOUDNESS
Pads: 180 (six pads × 30 sets)
Phrases (22 sets), drums/percussion (8 sets)
Melody tone matches chord
Demo Tunes: 3, sequential repeat playback
Auto-accompaniment
Rhythm patterns: 100
Tempo: Adjustable (216 levels, ♩ = 40 to 255)
Chords: 3 types (CASIO Chords, Fingered, Full-Range Chords)
Pads: Rhythm, bass, Chord 1, Chord 2, Chord 3 (adjustable on/off, tone, volume, pan, effect send, fine tune, coarse tune, expression settings)
Magical Presets: 50 types (Break Beat, Melodycomp, Shadow Drum, Free Session)
Registration Memory: 10
Tone changes, tempo setting, auto-accompaniment volume setting, mode, layer on/off, Mixer settings, effect type, split on/off, rhythm type, auto-accompaniment rhythm assignment, pad type, chord fingering method, touch response setting, MIDI settings (including assignable jack settings), Magical Preset type
Mixer
Number of channels: 16
Parameters: TONE, VOLUME, PAN, EFFECT SEND, FINE TUNE, COARSE TUNE, EXPRESSION, MUTE
MIDI monitor: 16 LED monitor
Song Memory
Number of songs: 2
Tracks: 6 (individual adjustment of on/off, tone, volume, pan, effect send, fine tune, coarse tune, expression)
Type: Real-time
Capacity: Approximately 5,200 notes

Other Functions
Transpose: 25 levels (1 octave lower C to 1 octave upper C)
Tuning: Adjustable: A4 = 440Hz ±50 cents
Pitch Bender: Adjustable range: ±12 semitones
Tone Expander: Individual adjustment of volume, tuning, pan, effect send for each layer and split tone
MIDI: 16-timbre multi-timbre receive (General MIDI Level 1)
Speakers: 12cm diameter × 2 (output: 5W + 5W)
Input/Output Jacks
Power supply: 12V DC
Headphones: Stereo standard jack
Output jacks: Output impedance: 100Ω
Output voltage 2.5V (RMS) MAX
Assignable Jack: Standard jack (sustain, sostenuto, soft, rhythm start/stop)
MIDI terminals: IN, OUT

Power Supply:	2-way
Batteries:	Six D-size batteries
Battery life:	Approximately 2 hours on R20P (SUM-1) manganese batteries; 6 hours on LR20 (AM1) alkaline batteries
AC Adaptor:	AD-12 (optional)
Auto Power Off:	Approximately six minutes after last key operation under battery power (disabled when AC adaptor is connected).
Power consumption:	12V⎓18W
Dimensions:	116.1 × 30.2 × 11.0 cm (45 3/4" × 11 7/8" × 4 5/16")
Weight:	6.8kg (15.0lbs) excluding batteries

- Designs and specifications are subject to change without prior notice.

Part 8 Appendix/Apéndice

■ Melodycomp Chord Charts
■ Cuadros de acordes Melodycomp

No.	Chord Chart								
18	CM7	Dm7	CM7	G7sus4	FM7	Em7	Dm7	F / G	
19	CM7	Am7	Dm	G7sus4	CM7	Am7	Dm9	G7sus4	
20	Dm	Am/C	B♭M7	Gm7	Dm	Am/C	B♭M7	Gm7	Am7
21	F	C	Dm	A	F	C	Dm	A	D
22	Am	G/A	CM7	FM7	B♭M7	E♭M7	Dsus4	E7	Am
23	Am9	Bm9	GM7	Asus4	A	Am9	D6	B♭M7	A
24	CM7 Am7	FM7 Dm	D/F♯ Gsus4	G CM7	E/G♯	Am	Am/F♯	B	Em7
25	Am	F	Gsus4	Em	F	Dm	Em	Am	

■ Free Session Chord Progression Chart: Key of C
■ Cuadros de progresión de acordes Free Session: Clave de DO

No.	Chord Chart
30 (BLUES 1)	‖C | 𝄎 | 𝄎 | 𝄎 |F | 𝄎 |C | 𝄎 |G | F |C | 𝄎 ‖
31 (BLUES 2)	‖C | 𝄎 | 𝄎 | 𝄎 |F | 𝄎 |C | 𝄎 |G | G |C | 𝄎 ‖
32 (MAJOR 1)	‖C |Am |Dm |G7 ‖
33 (MAJOR 2)	‖C |A7 |Dm7 |G7 ‖
34 (MAJOR 3)	‖C |Em |F |G7 ‖
35 (MAJOR 4)	‖C |Dm |Em |F ‖
36 (MAJOR 5)	‖C |C7 |F |Fm ‖
37 (MAJOR 6)	‖C |G |Am |Em |F |C |F |G7 ‖
38 (MAJOR 7)	‖C |Am |Dm |G7 |Em |Am |Dm |G7sus4 ‖
39 (MAJOR 8)	‖C |Dm |G7 |Am |F |C |F |G7 ‖
40 (MINOR 1)	‖Am |F |Dm7 |E7 ‖
41 (MINOR 2)	‖Am |G |F | 𝄎 ‖
42 (MINOR 3)	‖Am |F |G7sus4 |G7 ‖
43 (MINOR 4)	‖Am |E7 |G |Dm |F |C |Dm |E7 ‖
44 (MINOR 5)	‖Am |Am/G |Fm7♭5 |FM7 Am G D E7 ‖
45 (ADVANCED 1)	‖F |G/F |Em |Am ‖
46 (ADVANCED 2)	‖C |B♭ |F |C ‖
47 (ADVANCED 3)	‖C |E♭ |F | 𝄎 ‖
48 (ADVANCED 4)	‖Dm | 𝄎 |Em | 𝄎 ‖
49 (ADVANCED 5)	‖E | 𝄎 |F | 𝄎 G F E 𝄎 ‖

■ Note Table
■ Tabla de notas

A	B	C	D
000	32	A	A0 - C8
001	32	A	A0 - C8
002	16	A	A0 - C8
003	16	A	A0 - C8
004	32	A	E1 - G7
005	32	A	E1 - G7
006	32	B	F2 - F6
007	32	B	C2 - C7
008	32	A	C4 - C8
009	32	A	C5 - C8

A	B	C	D
010	16	B	C4 - C8
011	32	B	F3 - F6
012	32	B	C3 - C6
013	32	B	F4 - C7
014	32	B	C4 - F5
015	32	B	C4 - C6
016	16	B	C2 - C7
017	16	B	C2 - C7
018	16	B	C2 - C7
019	16	A	A0 - C8

A	B	C	D
020	32	B	C2 - C7
021	16	B	F3 - F6
022	32	B	C4 - C6
023	16	B	F3 - F6
024	32	B	E2 - C6
025	32	B	E2 - C6
026	32	B	E2 - D6
027	32	B	E2 - D6
028	32	B	E2 - D6
029	32	B	E2 - D6

A	B	C	D
030	32	B	E2 - D6
031	32	B	E2 - D6
032	32	C	E1 - G3
033	32	C	E1 - G3
034	32	C	E1 - G3
035	32	C	E1 - G3
036	32	C	E1 - G3
037	32	C	E1 - G3
038	32	C	E1 - G3
039	32	C	E1 - G3

A	B	C	D
040	32	B	G3 - C7
041	32	B	C3 - C6
042	32	C	C2 - C5
043	32	B	E1 - G3
044	32	B	E1 - C7
045	32	B	E1 - C7
046	32	A	B0 - G7
047	32	B	C2 - A3
048	32	B	E1 - C7
049	32	B	E1 - C7

A	B	C	D
050	32	B	C2 - C7
051	32	B	C2 - C7
052	32	B	C3 - G5
053	16	B	C3 - G5
054	16	B	C3 - C6
055	32	B	C3 - C5
056	32	B	A♯3 - A♯6
057	32	B	A♯1 - D♯5
058	32	B	F1 - G3
059	32	B	A♯3 - A♯5

A	B	C	D
060	16	B	F2 - F5
061	32	B	C2 - C7
062	16	B	C2 - C7
063	16	B	C2 - C7
064	32	B	F♯3 - D♯6
065	32	B	C♯3 - G♯5
066	32	B	F♯2 - D♯5
067	32	B	C♯2 - G♯4
068	32	B	A♯3 - G6
069	32	B	E3 - A5

A	B	C	D
070	32	B	A♯1 - C5
071	32	B	D3 - G6
072	32	A	D5 - C8
073	32	B	C4 - C7
074	32	B	C4 - C7
075	32	B	C4 - C7
076	16	B	C4 - C7
077	32	B	G3 - C6
078	32	B	C4 - C7
079	32	B	C4 - C6

A	B	C	D
080	16	A	A0 - C8
081	16	A	A0 - C8
082	16	B	C2 - C7
083	16	B	C2 - C7
084	16	B	C2 - C7
085	16	B	C2 - C7
086	16	B	C2 - C7
087	16	A	A0 - C8
088	16	B	C2 - C7
089	16	B	C2 - C7

A	B	C	D
090	16	B	C2 - C7
091	16	B	C2 - C7
092	16	B	C2 - C7
093	16	B	C2 - C7
094	16	B	C2 - C7
095	16	B	C2 - C7
096	16	B	C2 - C7
097	16	B	C2 - C7
098	16	B	C2 - C7
099	16	B	C2 - C7

A	B	C	D
100	16	B	C2 - C7
101	16	B	C2 - C7
102	16	B	C2 - C7
103	16	B	C2 - C7
104	32	B	C3 - F5
105	32	B	C3 - C6
106	32	B	D3 - G5
107	32	B	G3 - C6
108	32	B	C3 - G5
109	32	B	C2 - F5

A	B	C	D
110	32	B	G3 - C7
111	32	B	C3 - C5
112	32	B	C5 - C6
113	32	B	C4 - C5
114	16	B	E3 - E5
*115	32	B	C4 - C5
*116	32	B	C4 - C5
*117	32	B	C4 - C5
*118	16	B	C4 - C5
*119	32	B	C4 - C5

A	B	C	D
120	32	B	C4 - C5
121	16	B	C4 - C5
122	16	B	C4 - C5
123	32	B	C4 - C5
124	32	B	C4 - C5
*125	32	B	C4 - C5
*126	16	B	C4 - C5
*127	32	B	C4 - C5

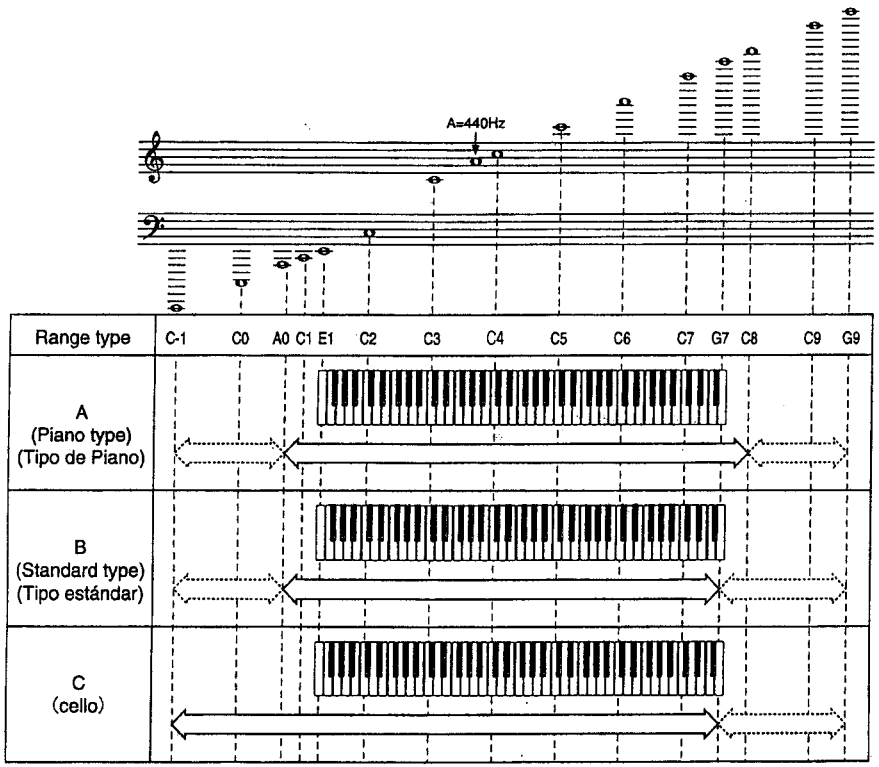
A: Tone number
Número de sonido

B: Maximum polyphony
Polifonía máxima

C: Range type (See page A-4)
Tipo de gama (vea la pagina A-4)

D: Recommended sound range for General MIDI
Gama de sonido recomendado por la MIDI general

* Tones without scale
* Sonidos sin escala



a .....Range of keyboard play
.....Gama de ejecución de teclado

b .....Playable range (Transpose, when receiving MIDI data)
.....Gama ejecutable (Transposición, al recibir datos MIDI)

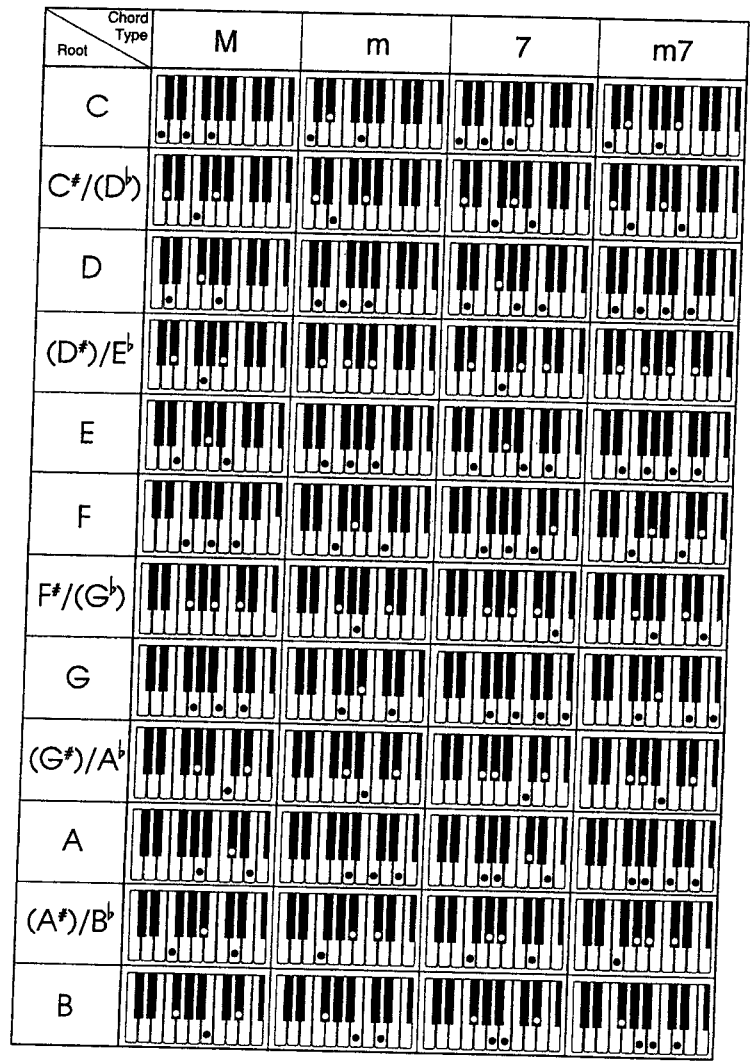
c .....Range in which same note is played in nearest octave as a result of transpose and MIDI data receive operation
(Transpose, when receiving MIDI data)
.....Gama en la que la misma nota se ejecuta en la octava más cercana como un resultado de la transposición y operación de receptión de datos MIDI.
(Transposición, al recibir datos MIDI)

■ Drum Assignment List (←indicates the same sound as STANDARD SET)
■ Lista de sonidos de batería (←Indica el mismo sonido que STANDARD SET)

Key / Note Number	STANDARD SET	ROOM SET	GATE SET	ELECTRIC SET
E1 28				
F1 29				
E#1 30				
G1 31				
F#1 32				
A1 33				
G#1 34				
B1 35	Acoustic Bass Drum	←	←	←
C2 36	Bass Drum	←	Gate Kick	←
C#2 37	Side Stick	←	←	←
D2 38	Acoustic Snare 1	←	Gate Snare	Elec Snare
D#2 39	Hand Clap	←	←	←
E2 40	Acoustic Snare 2	←	←	←
F2 41	Low Floor Tom	Room Low Floor Tom	Room Low Floor Tom	Elec Low Floor Tom
F#2 42	Closed Hi Hat	←	←	←
G2 43	High Floor Tom	Room High Floor Tom	Room High Floor Tom	Elec High Floor Tom
G#2 44	Pedal Hi Hat	←	←	←
A2 45	Low Tom	Room Low Tom	Room Low Tom	Elec Low Tom
A#2 46	Open Hi Hat	←	←	←
B2 47	Low Mid Tom	Room Low Mid Tom	Room Low Mid Tom	Elec Low Mid Tom
C3 48	High Mid Tom	Room High Mid Tom	Room High Mid Tom	Elec High Mid Tom
C#3 49	Crash Cymbal 1	←	←	←
D3 50	High Tom	Room High Tom	Room High Tom	Elec High Tom
D#3 51	Ride Cymbal 1	←	←	←
E3 52	Chinese Cymbal	←	←	←
F3 53	Ride Bell	←	←	←
F#3 54	Tambourine	←	←	←
G3 55	Splash Cymbal	←	←	←
G#3 56	Cowbell	←	←	←
A3 57	Crash Cymbal 2	←	←	←
A#3 58	Vibraslap	←	←	←
B3 59	Ride Cymbal 2	←	←	←
C4 60	High Bongo	←	←	←
C#4 61	Low Bongo	←	←	←
D4 62	Mute High Conga	←	←	←
D#4 63	Open High Conga	←	←	←
E4 64	Low Conga	←	←	←
F4 65	High Timbale	←	←	←
F#4 66	Low Timbale	←	←	←
G4 67	High Agogo	←	←	←
G#4 68	Low Agogo	←	←	←
A4 69	Cabasa	←	←	←
A#4 70	Maracas	←	←	←
B4 71	Short Whistle	←	←	←
C5 72	Long Whistle	←	←	←
C#5 73	Short Guiro	←	←	←
D5 74	Long Guiro	←	←	←
D#5 75	Claves	←	←	←
E5 76	High Wood Block	←	←	←
F5 77				
F#5 78	Low Wood Block	←	←	←
G5 79	Mute Cuica	←	←	←
G#5 80	Open Cuica	←	←	←
A5 81	Mute Triangle	←	←	←
A#5 82	Open Triangle	←	←	←
B5 83	Shaker	←	←	←
C6 84	Suzu	←	←	←
C#6 85	Stick	←	←	←
D6 86	Scratch High	←	←	←
D#6 87	Scratch	←	←	←
E6 88	Scratch Low	←	←	←
F6 89				
F#6 90				
G6 91				
G#6 92				
A6 93				
A#6 94				
B6 95				
C7 96				
C#7 97				
D7 98				
D#7 99				
E7 100				
F7 101				
F#7 102				
G7 103				

Key / Note Number	SYNTH SET	BRUSH SET	STANDARD SET 2	VOICE SET
E1 28				
F1 29				
E#1 30				
G1 31				
F#1 32				
A1 33				
G#1 34				
B1 35	←	←	←	
C2 36	Synth Bass Drum	←	←	Voice Kick
C#2 37	Synth Rim Shot	←	←	Synth Bass Drum
D2 38	Synth Snare	Brush Tap	←	Synth Rim Shot
D#2 39	←	Brush Slap	Acoustic Snare 3	Voice Snare
E2 40	Synth Clap	Brush Swirl	←	←
F2 41	Synth Low Floor Tom	←	←	←
F#2 42	Synth Closed Hi Hat 1	←	←	Synth Low Floor Tom
G2 43	Synth High Floor Tom	←	←	Voice Closed Hi Hat 1
G#2 44	Synth Closed Hi Hat 2	←	←	Synth High Floor Tom
A2 45	Synth Low Tom	←	←	Synth Closed Hi Hat 2
A#2 46	Synth Open Hi Hat	←	←	Synth Low Tom
B2 47	Synth Low Mid Tom	←	←	Voice Open Hi Hat
C3 48	Synth High Mid Tom	←	←	Synth Low Mid Tom
C#3 49	Synth Cymbal	←	←	Synth High Mid Tom
D3 50	Synth High Tom	←	←	Synth Cymbal
D#3 51	←	←	←	Synth High Tom
E3 52	←	←	←	←
F3 53	←	←	←	←
F#3 54	←	←	←	←
G3 55	←	←	←	←
G#3 56	Synth Cowbell	←	←	←
A3 57	←	←	←	Synth Cowbell
A#3 58	←	←	←	←
B3 59	←	←	←	←
C4 60	←	←	←	←
C#4 61	←	←	←	←
D4 62	Synth Mute High Conga	←	←	←
D#4 63	Synth Open High Conga	←	←	Synth Mute High Conga
E4 64	Synth Low Conga	←	←	Synth Open High Conga
F4 65	←	←	←	Synth Low Conga
F#4 66	←	←	←	←
G4 67	←	←	←	←
G#4 68	←	←	←	←
A4 69	←	←	←	←
A#4 70	←	←	←	←
B4 71	←	←	←	←
C5 72	←	←	←	←
C#5 73	←	←	←	←
D5 74	←	←	←	←
D#5 75	←	←	←	←
E5 76	←	←	←	←
F5 77				←
F#5 78	←	←	←	←
G5 79	←	←	←	←
G#5 80	←	←	←	←
A5 81	←	←	←	←
A#5 82	←	←	←	←
B5 83	←	←	←	←
C6 84	←	←	←	←
C#6 85	←	←	←	←
D6 86	←	←	←	←
D#6 87	←	←	←	←
E6 88	←	←	←	←
F6 89				
F#6 90				
G6 91				
G#6 92				
A6 93				
A#6 94				
B6 95				
C7 96				
C#7 97				
D7 98				
D#7 99				
E7 100				
F7 101				
F#7 102				
G7 103				

■ Fingered Chord Chart
■ Cuadros de acordes Fingered



Root \ Chord Type	M7	m7-5	dim	aug	sus4
C					
C♯/(D♭)					
D					
(D♯)/E♭					
E					
F					
F♯/(G♭)					
G					
(G♯)/A♭					
A					
(A♯)/B♭					
B					

Root \ Chord Type	7sus4	madd9	mM7	7^{-5}	add9
C					
C♯/(D♭)					
D					
(D♯)/E♭					
E					
F					
F♯/(G♭)					
G					
(G♯)/A♭					
A					
(A♯)/B♭					
B					

Model **WK-1500**

MIDI Implementation Chart

Version: 1.0

Function ...		Transmitted	Recognized	Remarks
Basic Channel	**Default**	1-16*1	1-16	*1Hold in memory as long as the power is supplied
	Changed	1-16	1-16	
Mode	**Default**	Mode 3	Mode 3	
	Messages	X	X	
	Altered	**********	**********	
Note Number:	**True voice**	28 - 103 **********	0-127 12 - 108*2	*2See Note Table on pages A-3 and A-4
Velocity	**Note ON**	O 9nH v = 1-127	O 9nH v = 1-127	
	Note OFF	X 9nH v = 0	X 9nH v = 0, 8n v = XX	XX = no relation
After Touch	**Key's**	X	X	
	Ch's	X	O	
Pitch Bender		O	O	
Control Change	**1**	O	O	Modulation
	6,38	O*3	O*3	Data entry
	7	O	O	Volume
	10	O	O	Pan
	11	O	O	Expression
	64	O*4	O	Hold1
	66	O*4	O	Sostenuto
	67	O*4	O	Soft pedal
	91	O	O	Effect depth(external device)
	100, 101	O*3	O*3	RPN LSB, MSB
	120	X	O	All sound off
	121	X	O	Reset all controller
Program Change:	**True #**	O 0-127 **********	O 0-127 **********	
System Exclusive		O*5	O*5	
System Common	**: Song Pos**	X	X	
	: Song Sel	X	X	
	: Tune	X	X	
System Real Time	**: Clock**	O	X	
	: Commands	O	X	
Aux Messages	**: Local ON/OFF**	X	X	
	: All notes OFF	X	O	
	: Active Sense	X	O	
	: Reset	X	X	
Remarks		*3Pitch bend sense, Coarse tune, Fine tune data (send/receive) *4Alternative *5Bulk damp data GM ON, GM OFF Effect Change		

Mode 1 : OMNI ON, POLY
Mode 2 : OMNI ON, MONO
Mode 3 : OMNI OFF, POLY
Mode 4 : OMNI OFF, MONO

O : Yes
X : No